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ANNUAL STATEMENT

1982

REPORT OF THE MEDICAL OFFICER OF HEALTH

CITY OF TORONTO
DEPARTMENT OF
PUBLIC HEALTH

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CITY OF TORONTO DEPARTMENT OF PUBLIC HEALTH

1982 ANNUAL STATEMENT

E R R A T A

LOCATION	PHRASE (as it now reads)	CORRECTION (as it should read)
Page 1, 5th paragraph	"For the first time in over ten years.."	"For the second time in over ten years.."
Page 1, 2nd column a) 3rd and 4th paragraphs b) last paragraph	"infectious syphilis" "15.6%" "Hepatitis B more than doubled"	"total syphilis" "15.3%" "Hepatitis B increased by more than 30%"
Page 1, 3rd column a) 2nd paragraph	"lung cancer and motor vehicle accidents rank at the top of the list..."	"suicide and motor vehicle accidents rank near the top of the list..."
b) last paragraph	"females had the highest suicide rates and the second highest DSRs..."	"females had the highest suicide rates and the third highest DSRs..."
Page 2, 1st column, 2nd paragraph	"and lung cancer and suicide have not shown a decrease..."	"and lung cancer and suicide in males have not shown a decrease..."
Page 3, 2nd column, 2nd paragraph	"and the number of residents between the ages of 35 and 74 have increased."	"and the number of residents over the age of 75 have increased."
Page 4, Figure 1	1970 - Shaded 1981 - Unshaded	The labelling should be reversed.
Page 24, Figure 22	1982 Reported Infectious Syphilis Rates in Females by Age Group were omitted from the chart.	They are as follows: Age — Rate < 15 years — 0.0 15 - 19 years — 4.9 20 - 24 years — 6.6 25 - 29 years — 3.0 30+ years — 2.8
Page 26, Table 12	"Ppng"	"PPNG (abbreviation for Penicillinase Producing Neisseria Gonorrhoeae)"

Page 39, last column, final paragraph	"Detailed analyses of mortality by Health Area have been published previously."	"This refers to the report entitled Status of Health in the Four Health Areas of the City of Toronto"
Page 40, Figure 30	"Sx" "Count"	"Sex" "Number of deaths"
Page 42, Figure 32	"1982"	"1979 - 1982 (These rates were calculated from four years of deaths. Therefore the scale at the bottom of the graph extends to 40,000 on each side with zero in the centre).
	"Footnote: Per 100,000 population"	"Per 100,000 population based on the 1981 census."
Page 43, Charts		The reader should note that the myocardial infarction chart is drawn at half the scale of the other two charts due to the large numbers of deaths for this disease.
Page 47, Figure 35a	The axis reading "No. of deaths"	"No. of deaths" should read "percent" Footnote should read "Projected indices of seasonal variation expressed as a percent of total deaths divided by 12 months"
	Dx in title	Deaths
Page 48, Figure 35b	Same changes as above. "Digestive Disease (ICD-9 460-519)"	Same changes as above. "ICD-9 520-579"
Page 50, Figures 37 + 38		The footnotes should be reversed for these two diagrams.

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Page 64, Table I

Year	Birth Rate(1)	General Death Rate(1)	Year	Birth Rate(1)	General Death Rate(1)
1972	16.5	9.1	1972	16.8	9.3
1973	16.1	9.3	1973	16.4	9.5
1974	15.1	9.1	1974	15.8	9.5
1975	14.7	8.6	1975	15.6	9.2
1976	13.9	8.4	1976	15.0	9.0
1977	13.5	8.5	1977	14.5	9.1
1978	12.8	8.4	1978	13.5	8.9
1979	12.4	8.3	1979	13.0	8.7
1980	13.5	8.5	1980	13.4	8.5
1981	12.8	8.6	1981	12.8	8.6
1982	13.5+	8.4+	1982	13.5+	8.4+

Page 64, Table I — "Stillbirth rate" — "Stillbirth ratio"

Page 65, Table III — "Stillbirth rate" — "Stillbirth ratio"

Page 71, Table XI,
Under:

1 - 4 years	"All other cancers"	"All other central nervous system"
5 -14 years		

Page 75, Table XIV,
Under:

Stillbirths	"Rate**"	"Ratio**"
Maternal Deaths	"Rate"	"Ratio**"

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December 20, 1983

Alderman Anne Johnston, Chairman,
and Members of the Local Board of Health,
City Hall, Toronto, Ontario.

Ladies and Gentlemen:

Pursuant to the provisions of Section 23 of The Public Health Act, I am pleased to enclose the Annual Statement of the City of Toronto Department of Public Health for the calendar year 1982.

In May of 1978 the Health Planning Steering Committee of the Local Board of Health of the City of Toronto produced the now classic report *Public Health in the 1980's*. On July 9, 1982, the Department of Public Health implemented *Reorganization - Phase Two*, thereby completing the administrative portion of the recommendations of *Public Health in the 1980's*. As a result, the Department is now decentralized into four Health Areas, each with an Area Management Team and a Community Advisory Board.

In addition, staff from the Health Advocacy Unit and certain other Divisions were incorporated into four Central Resources groups: Community Health Protection, Community Preventive Health, Community Health Promotion, and Community Health Information.

The Health Advocacy Unit was a bold experiment in public health, attracting at least nation-wide attention. Most of the projects of the Unit continued after reorganization, notably the extensive work on video display terminals, "the Chemical Society", and the widely admired health information system. The Unit taught us new approaches to the role of a health department. These lessons will be the permanent legacy of this remarkable group.

The reorganization was a very radical departure from the traditional structure - some Divisions had existed for nearly eighty years.

1982 was a particularly heavy year for the City of Toronto Department of Public Health. In addition to reorganization, the new Health Areas had to contend with the implementation of major new legislation - the Immunization of School Pupils Act, 1982. This involved determining the immunization status of elementary school children and all school entrants; assisting and encouraging families to immunize their children; and providing immunization, where required. In time, enforcement of the Immunization of School Pupils Act will become a relatively routine part of the activity of the Department, but the initial stages involved a very substantial workload.

Added to this activity, each Area had another project of major proportions. The Northern Health Area - an outbreak of whooping cough in day nurseries; the Eastern Health Area - a major survey of blood lead levels in South Riverdale; the Downtown Health Area - increased reporting of outbreaks of infectious disease in hospitals and other institutions; and the Western Health Area - environmental contamination associated with the Junction Triangle and the problems of large numbers of persons with chronic psychiatric illness in Parkdale. Despite this heavy workload, by year-end the newly appointed managers were well settled.

Again, I wish to express my thanks to members of the Local Board of Health, the City administration, provincial officials and especially to the staff of the Department of Public Health, for their continued support and commitment to the successful operation of the reorganized Department.

Respectfully submitted,

A.S. Macpherson, M.D., M.Sc.
Medical Officer of Health

Local Board of Health Members:

Alderman Anne Johnston, Chairman
Ms. Dawn Currie, Vice-Chairman
Alderman Ron Kanter
Alderman Tony O'Donohue
Trustee Maureen Fitzpatrick
Trustee Penny Moss
Mr. Bhoo Agarwal
Ms. Emgar Craigg
Dr. George Wodehouse

Chief Executive Officer:

A.S. Macpherson, M.D., Dip.Psych.
F.R.C.P.(C), C.S.P.Q., M.Sc.
Medical Officer of Health

Executive Staff:

Office of the Medical Officer of Health:
Marcia K. Moss, B.A., M.A.
Executive Assistant
Edward K. Tennant, B.A., M.A.
Administration Coordinator

Central Resources:

To be appointed
Coordinator, Community Health Information
Elizabeth Parker, B.A., M.S.W.
Coordinator, Community Preventive Health
William Shannon, Ed.D.
Coordinator, Community Health Promotion and Advocacy
Richard H. Boehnke, B.A., C.P.H.I.(C)
Coordinator, Community Health Protection

Downtown Health Area:

To be appointed in January 1983
Associate Medical Officer of Health
Syd K. Baxter
Business Manager
W.D. (Bud) Connery, C.P.H.I.(C)
Manager, Environmental Health and Inspection Services
Betty M. Davidson, R.N., B.A., M.A.
Manager, Personal Health Services

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Eastern Health Area:

C. Edward Ellis, M.D., M.P.H.
Associate Medical Officer of Health
Suki Garson, B.A., M.B.A.
Business Manager
A. Edward Whiteside, C.P.H.I.(C)
Manager, Environmental Health and Inspection Services
Donna Biesenthal, B.Sc.N.
Manager, Personal Health Services

Western Health Area:

O. Mavis Rampersaud, M.D., M.R.C.O.G., D.P.H.
Associate Medical Officer of Health
Ray W. Beers, B.A., R.I.A.
Business Manager
James M. Flaherty, C.P.H.I.(C)
Manager, Environmental Health and Inspection Services
Julia A. Shea, R.N., D.P.H.N., N.P., M.H.Sc.
Manager, Personal Health Services

Northern Health Area:

Trevor Hancock, M.B., B.S., M.H.Sc.
Associate Medical Officer of Health
Rick Donaldson
Business Manager
Fred W. Ruf, C.P.H.I.(C)
Manager, Environmental Health and Inspection Services
Frances L. Perkins, R.N., M.H.Sc.
Manager, Personal Health Services

Editorial Staff:

Lynn Elinson, B.A., M.Ed., Cert. Epid.
Epidemiologist
Diana Baxter, B.A., M.A.
Health Planner
Linda Rosenbaum, B.A., C.P.H.
Health Promotion Officer

Community Advisory Boards

One of the major objectives of the reorganization of the Toronto Department of Public Health was to involve the community more in the functioning of the Department. One way of achieving this outcome is by establishing Community Advisory Boards made up of citizens of the area. Through such a mechanism, citizens, staff and the Board of Health can better work together to identify and seek solutions for the public and provide continuity in decision-making. While the Community Advisory Board in the Eastern Health Area has been in operation for a few years, those in the three other areas were formed during 1982 after the formal reorganization occurred in July. Even though most are still in their formative stages, these advisory bodies will be instrumental in keeping staff in touch with local issues. The membership of the four Community Advisory Boards are listed below:

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Eastern Health Area - 1982
Anne Babcock
Sam Cipolone
Sheila Cram
Elaine Gerszon
Alice Jillings
Camaral Kahn
Barbara Linds
Dennis Long
Lawrence Pushee
Martin Sarra
Dorothy Thomas

Downtown Health Area - 1982
Penny Patterson
Josephine Ciordas
Millie Greenfield
Mary Heiberg
Flora Hesson
Sing Hum
Berdina Johnston
Rhonda Love
Winnie Ng
David Pinkus - Chair

Western Health Area - 1982
Albert Bernadine
Tomas Ferreira
Susan Gac
Frances Labell
Rosario Marchese
Mort Mates
Thomas Rendon
Susan Shaw
Terry Wedge

Northern Health Area - 1982
Eileen Simmons - Chair
Pat Bannan
Ethel Myers
Penny Bethke
Betty Clarke
Nancy McMurrich
Magdalene Nintcrott
Susan Waterfield
Nigel Richardson

Department of Public Health District Offices

Western Health Area
- * 358 Keele Street
- o 1115 Queen Street West
- 2340 Dundas Street West

Northern Health Area
- X 64 Merton Street
- 1884 Davenport Road

Downtown Health Area
- ● 559 Jarvis Street
- 0 City Hall, 6th Floor, East Tower
- ▪ 511 Richmond Street West

Eastern Health Area
- ◎ 815 Danforth Avenue
- 1631 Queen Street East

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Layout and Design - Ian King

Health Status Report, City of Toronto Residents, 1982

Introduction

The City of Toronto Department of Public Health 1982 Annual Statement once again examines the health status of City of Toronto residents. As will be discussed in this section on health status, we not only continue to use the health indicators used in last year's report, but the 1982 Annual Statement also introduces a few new methods for assessing the health status of City residents.

The health status section of the 1982 Annual Statement serves a number of useful functions. It provides an overview of health status of City of Toronto residents, and it also provides key information for policymakers and programme planners in the Department of Public Health.

This year the health status section contains five components: 1) The City of Toronto in 1982; 2) The Population; 3) Natality; 4) Morbidity; and 5) Mortality. Each section presents part of the profile of the population's health. In addition, some important programme implications are identified for the City of Toronto Department of Public Health. It is anticipated that attention to health data and the implications of these data will serve to improve the health of City of Toronto residents.

The City of Toronto in 1982

While few major changes in health status have occurred since the previous year, there are a number of health indicators which show a continued trend or begin to identify emerging patterns. In addition, new data have been examined, or data have been examined in a different way, so we begin to have a more comprehensive picture of the health of City of Toronto residents.

Continued or Emerging Patterns

For the first time in over ten years, the number and rate of births has increased among City of Toronto residents. This increase is primarily in the older age groups and may be indicative of a delay in pregnancy of working women.

On the other end of the scale, teenage births are down. However, in 1982, 337 births occurred in single mothers younger than 20 years of age. In addition, abortions have been increasing in teenagers in the past seven years (although leveled off in 1982), and more than 12% of adolescent abortions were repeats.

The reported rates of venereal disease among City of Toronto residents continued to decrease in 1982. Gonorrhea in males decreased in every age group but the youngest, and also decreased in females 15-19 years of age.

The trend in reported infectious syphilis also continued to decrease, although at a much greater rate than gonorrhea. According to the cases reported to the Department of Public Health in 1982, there was a 32.8% decrease in infectious syphilis since 1981.

It is possible that the decrease in infectious syphilis is related to a decrease in sexual activity in the male homosexual community. This decrease in sexual activity might have occurred as a result of the publicity connected with AIDS (acquired immune deficiency syndrome), a disease which has been associated with the male homosexual population. Other jurisdictions reported a decrease in this sexual activity (1), and it seems likely that a similar decrease is occurring in the City of Toronto.

The possibility, however, cannot be ruled out that the decrease in numbers is a result of a change in the method for collection of data. Because of the reorganization, STD data for 1982 were collected retrospectively. A new information data collection system will be implemented in 1983, however, so the Department of Public Health will be paying careful attention to the trends in STD in the future.

A change in the direction of two other communicable diseases was noted in 1982, although the direction is upward rather than downward. In 1982, there was a 15.6% increase in the rate of tuberculosis in males and a 46.0% increase in females. Also, Hepatitis B more than doubled since 1981. The possible reasons for such increases are being investigated by the Department.

Compared with 1981, few changes in mortality have been noted. Overall infant mortality (death under 1 year of age) continued to decrease. However, rates have increased between 1 and 7 days and 7 and 28 days. On the other hand, between 28 days and 12 months, the rate per 1,000 live births decreased.

Heart disease and lung cancer continued to be the leading causes of death among City of Toronto residents in 1982. However, because they occur at a relatively young age, lung cancer and motor vehicle accidents rank at the top of the list for potential years of life lost (PYLL). In addition, compared to the province as a whole, City of Toronto males had higher rates of leukemia (ages 15-44), suicide (ages 45-64) and cirrhosis (age 65+). Toronto female rates were higher for suicide (ages 45-64) and lung cancer (age 65+).

New Data — New Analysis

For the 1982 Annual Statement, the Toronto Department of Public Health not only has acquired additional and improved data on City of Toronto residents, but also has analyzed data in a number of different ways. For example, this year for the first time, the Ministry of Health provided the Department with hospital discharge data broken down by sex and 10-year age groups. The Ministry also has provided mortality data on the six municipalities of Metropolitan Toronto so the City of Toronto can be compared to the rest of Metro.

One method of comparison used in this Annual Statement is known as direct adjustment, and we have calculated directly standardized rates (DSR's) to compare the Metro municipalities, as well as to examine City data for the past ten years.

Using DSR's to compare Toronto to the rest of Metro, the results have not been positive. For selected causes of death, Toronto males had the highest DSR's for all causes, lung cancer, cirrhosis and suicide. Toronto females had the highest suicide rates and the second highest DSR's for lung cancer,

cirrhosis, and motor vehicle accidents. The reason for these high rates is not known, but it is suspected that the Registrar General's Office - where these data are tabulated - may be misassigning addresses from other parts of Metropolitan Toronto to the City of Toronto, thereby decreasing mortality rates in the other municipalities and increasing it in Toronto.

The DSR's which were used to examine trends in mortality between 1972 and 1982 bear some interesting results. Myocardial infarction in males has decreased substantially (a phenomenon which is mirrored in Ontario and Canada), as well as male rates of motor vehicle accidents. Deaths from all causes have declined - more in males than in females - since 1972, and lung cancer and suicide have not shown a decrease in the past eleven years.

Because of the reorganization of the Department of Public Health, this year for the first time we analyzed data by Health Area of the City. Using this method of analysis, it has been noted that:

- The Eastern Health Area has the highest ratio of children to adults;
- The Downtown Health Area has the highest concentration of singles;
- The Western Health Area has the highest concentration of population in the 0-4 year old age group;
- Low birthweight census tracts are clustered in the Downtown Health Area;
- The Downtown Health Area had the highest rate of tuberculosis in 1982;
- The Northern Health Area had the lowest general death rate.

Each of the four Health Areas will continue to monitor these and other data available in the Department in order to prioritize, plan, and evaluate their programs.

Both a spatial analysis and seasonal analysis have been added to the 1982 Annual Statement. The spatial analysis—which calculates DSR's for each of the 142 census tracts in the City—identifies the centre of the City of Toronto with the highest mortality rates from all causes, neoplasms, and digestive diseases.

The seasonality analysis in this year's statement identifies the time of year when certain causes of death are likely to occur, based on when death occurred over the past four years. Of the groups of causes of death examined, an increase in mortality is expected in December and January for all causes combined, diseases of the circulatory system, respiratory disease, and diseases of the digestive system. Mortality from mental disorders are expected to increase substantially in October. This finding has not been observed in other jurisdictions, and the Department of Public Health will have to explore further the reasons for this phenomenon.

Future Directions – Programme Implications

Although there are a number of kinds of information which can be used in decision-making and programme planning, the Toronto Department of Public Health is committed to the use of health data as a primary source of information. The information contained in the 1982 Annual Statement points to a number of clear implications for the Toronto Department of Public Health and Toronto residents. These implications can be grouped into the following areas: continued multicultural attention; prenatal and family planning programs; attention to communicable disease, particularly tuberculosis; the Department's 20-year Smoking Prevention Programme to reduce further heart disease and lung cancer; new programmes for the reduction of suicide and cirrhosis; and continued analysis of data.

1. Continued Multicultural Attention

The data and figures contained in the 1982 Annual Statement clearly illustrate the multi-ethnic nature of the City of Toronto and the areas of the City with the highest concentrations of specific ethnic communities. All programme planning in the Toronto Department of Public Health must be aware of these ethnic groups and of their particular health needs.

2. Prenatal and Family Planning Programmes

Teenage pregnancy and low birthweight infants are still important health problems, particularly in certain areas of the City of Toronto. The Department of Public Health should continue its prenatal and family planning programmes with increased concentration toward high risk groups.

3. Communicable Disease - Tuberculosis

At the same time that the number of cases of tuberculosis increased among City of Toronto residents, the Toronto Chest Clinic was closed by the Ministry of Health. With the Chest Clinic no longer available to tuberculosis patients, the Toronto Department of Public Health must ensure that those individuals without OHIP are treated and that private physicians report cases of tuberculosis to the Department of Public Health. In addition, children with positive Mantoux tests must be seen by a family physician, and it will be the responsibility of the school Public Health Nurse to ensure that this occurs.

4. 20-Year Smoking Prevention Programme

Heart disease and lung cancer continued to be major causes of death and hospitalization among City of Toronto residents. The 20-Year Smoking Prevention Program, begun as a pilot in 1981, and continued during 1982, is the Department of Public Health's most important long-term plan for reducing these diseases in the City of Toronto.

5. Programmes for the Reduction of Suicide and Cirrhosis

Both suicide and cirrhosis are major causes of potential years of life lost and, compared to the province as a whole, rates are higher in the City of Toronto. To combat these important diseases, therefore, new mental health programmes and substance abuse programmes are being planned in the Department of Public Health.

6. Continued Analysis of Data

Many of the new methods of analysis of data have uncovered important questions on Toronto's health status. For example, why are mortality rates of City of Toronto residents higher than those of the other Metro municipalities? Why does the mortality rate for mental conditions increase during the month of October? Why has infectious syphilis decreased and tuberculosis increased among City of Toronto residents? These and other questions will be pursued over the next year as a means of further defining the health status of City of Toronto residents.

The Population

Table 1: City of Toronto Population by Five Year Age Groups, and Sex, 1981* +

Age Group	Population (000's) Male	Female	Total
0 - 4	11.8	11.2	23.0
5 - 9	16.8	15.7	32.5
10 - 14	18.4	17.5	35.9
15 - 19	21.2	20.5	41.7
20 - 24	28.2	30.5	58.7
25 - 29	30.4	32.9	63.3
30 - 34	28.4	28.6	57.0
35 - 39	21.2	21.0	42.2
40 - 44	17.0	16.7	33.7
45 - 49	15.9	15.6	31.5
50 - 54	16.4	15.9	32.3
55 - 59	15.3	16.4	31.7
60 - 64	12.2	13.7	25.9
65 - 69	10.9	13.0	23.9
70 - 74	8.9	12.3	21.2
75 - 79	6.8	10.2	17.0
80 - 84	4.6	7.8	12.4
85+	3.5	6.7	10.2
Total	287.9	306.2	594.1

* Source: Assessment population obtained from Metro Toronto Planning Department

\+ 1982 population was not available at time of analysis

At the time of analysis of this Annual Statement, the 1982 Assessment population was not available from the Metro Planning Department. Therefore, the 1981 Assessment population is shown in Table 1. It is likely that the age and sex distribution of the Toronto population has not changed over a period of one year, and the size of the population is still just under 600,000 residents.

On the other hand, the size of the population changed substantially between 1970 and 1981 (Figure 1). The younger age groups have decreased - confirming a decrease in the fertility rate over the past eleven years - and the number of residents between the ages of 35 and 74 have increased.

Since reorganization of the Department of Public Health into four distinct Health Areas, the Department has begun to analyze data by Area, as well as for the City as a whole. Figure 2 shows the age and sex distribution of the population in the four Health Areas in 1981. The Northern Health Area (NHA) has the largest population and the largest population over the age of fifty. The Downtown Health Area (DHA) has the smallest nighttime population (the daytime population is much larger). The Eastern Health Area (EHA) has the highest ratio of children to adults, while the Western Health Area (WHA) most closely resembles the population pyramid for the City as a whole.

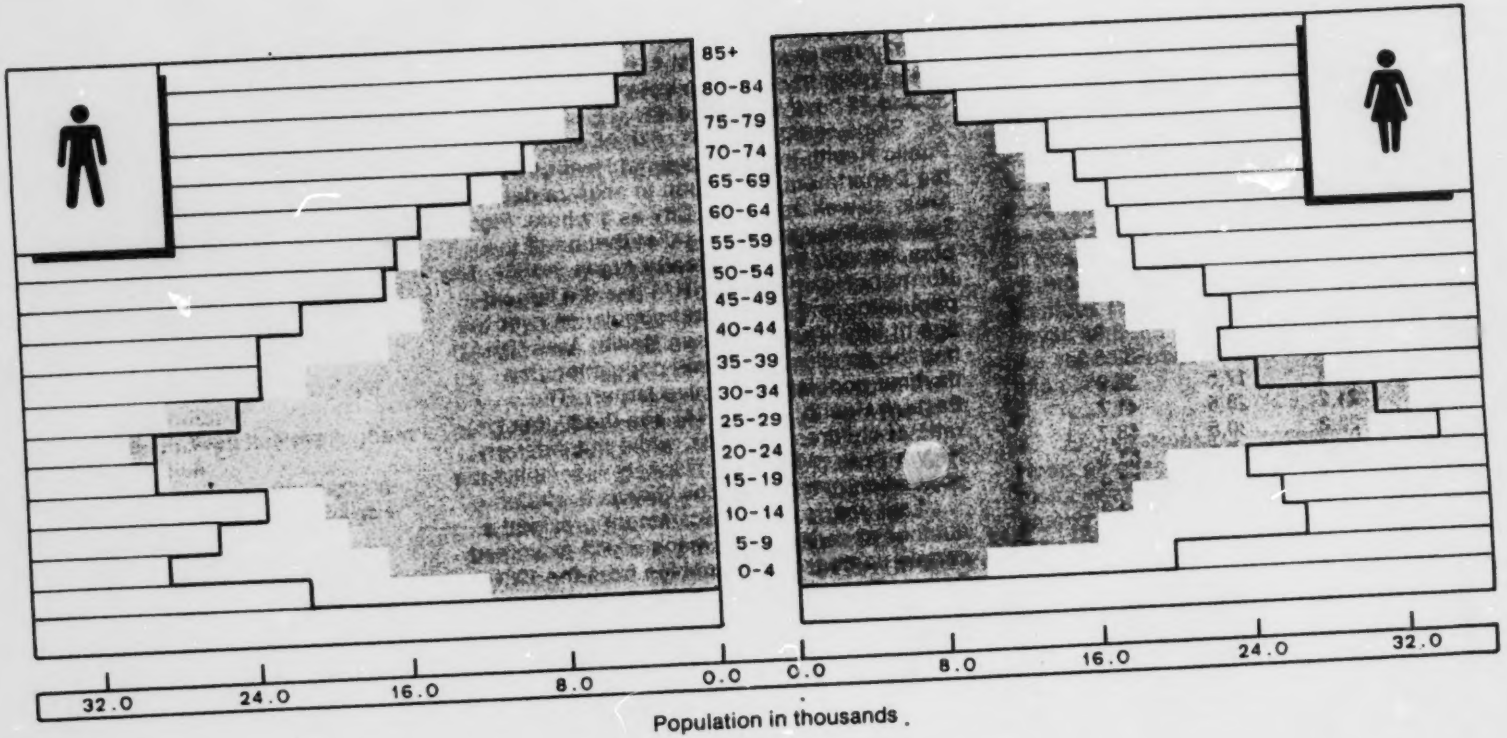
Last year's Annual Statement provided a number of census tract maps which examined certain demographic variables from the 1981 Canada Census. This year other variables have been chosen to give a further picture of the City of Toronto population. The variables examined in 1982 are the following:

- proportion of the population 0-4 years of age (Figure 3)
- proportion of the population 15-19 years of age (Figure 4)
- proportion of the population which is Portuguese (Figure 5)
- proportion of the population which is Italian (Figure 6)
- proportion of the population which is Chinese (Figure 7)

For each map, the census tracts with the highest proportion (the 90th percentile or greater) are coloured in black. (Appendix 1 shows the location of each census tract.) In addition, all of the census tract maps in this report contain ten different levels to depict the ten decile breakdowns of data. In that way, for example, it is easy to see that the highest proportions of very young children (ages 0-4) are found in the WHA and the western part of the NHA (Figure 3).

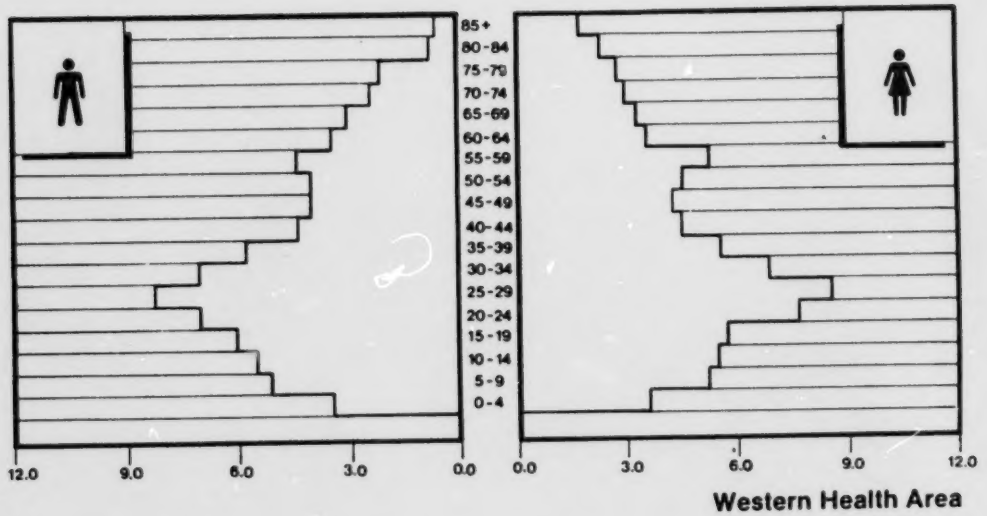
In addition, the areas of residence for each of the ethnic groups can be easily identified from the census tract maps. The Portuguese population lives primarily in the WHA, west of Bathurst Street and south of Bloor (Figure 5). The Italian population, on the other hand, lives north of Bloor and west of Ossington Avenue (Figure 6). There are two clusters of census tracts with high populations of Chinese (Figure 7). One cluster is west of University Avenue running north and south of Dundas. The larger cluster is east of the Don River in the EHA.

Figure 1: Population of City of Toronto by 5-Year Age Groups and Sex, 1970 Superimposed upon 1981*

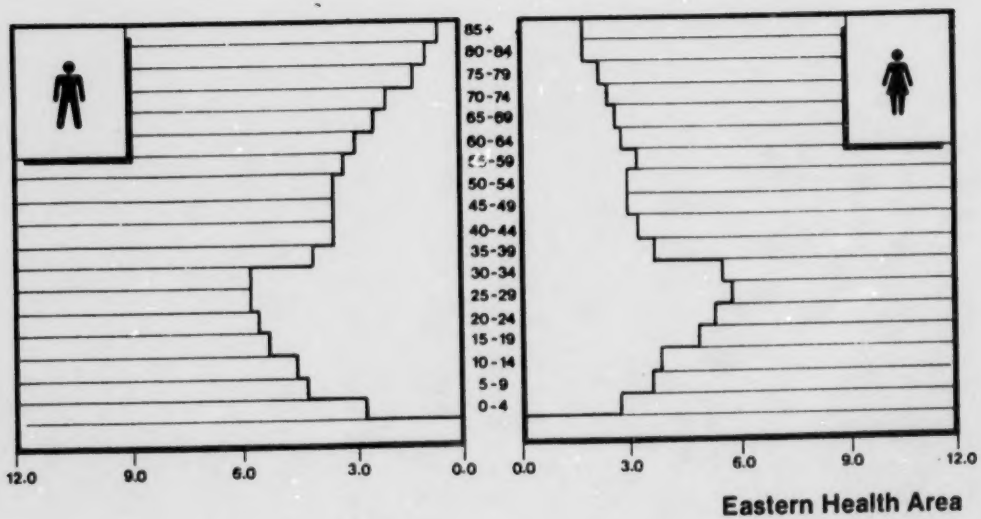


*Data obtained from Ministry of Revenue Assessment Rolls

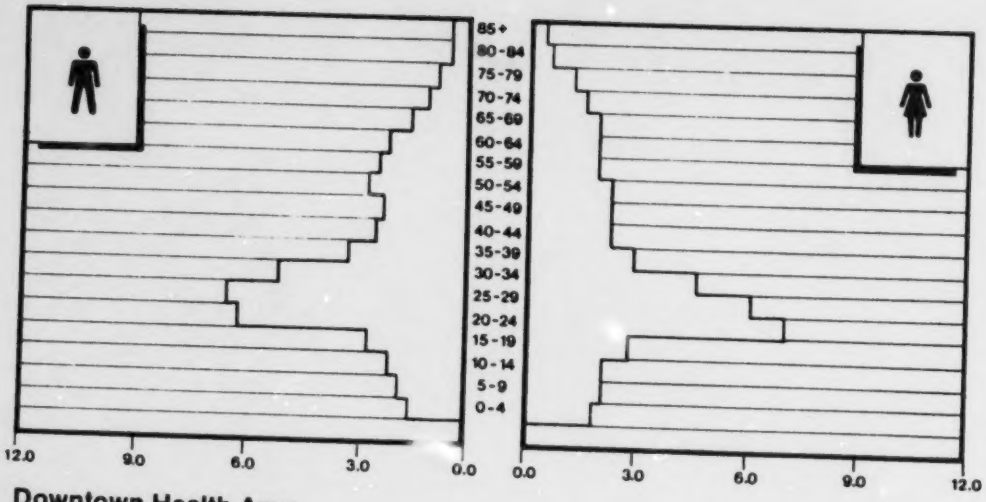
Figure 2: Population of Toronto's Four Health Areas by 5-Year Age Groups and Sex, 1981



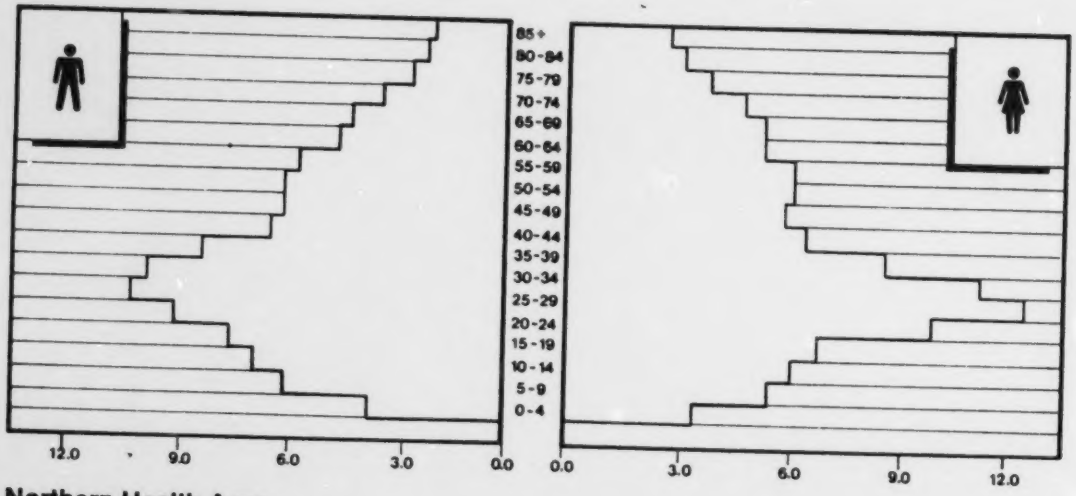
Western Health Area



Eastern Health Area

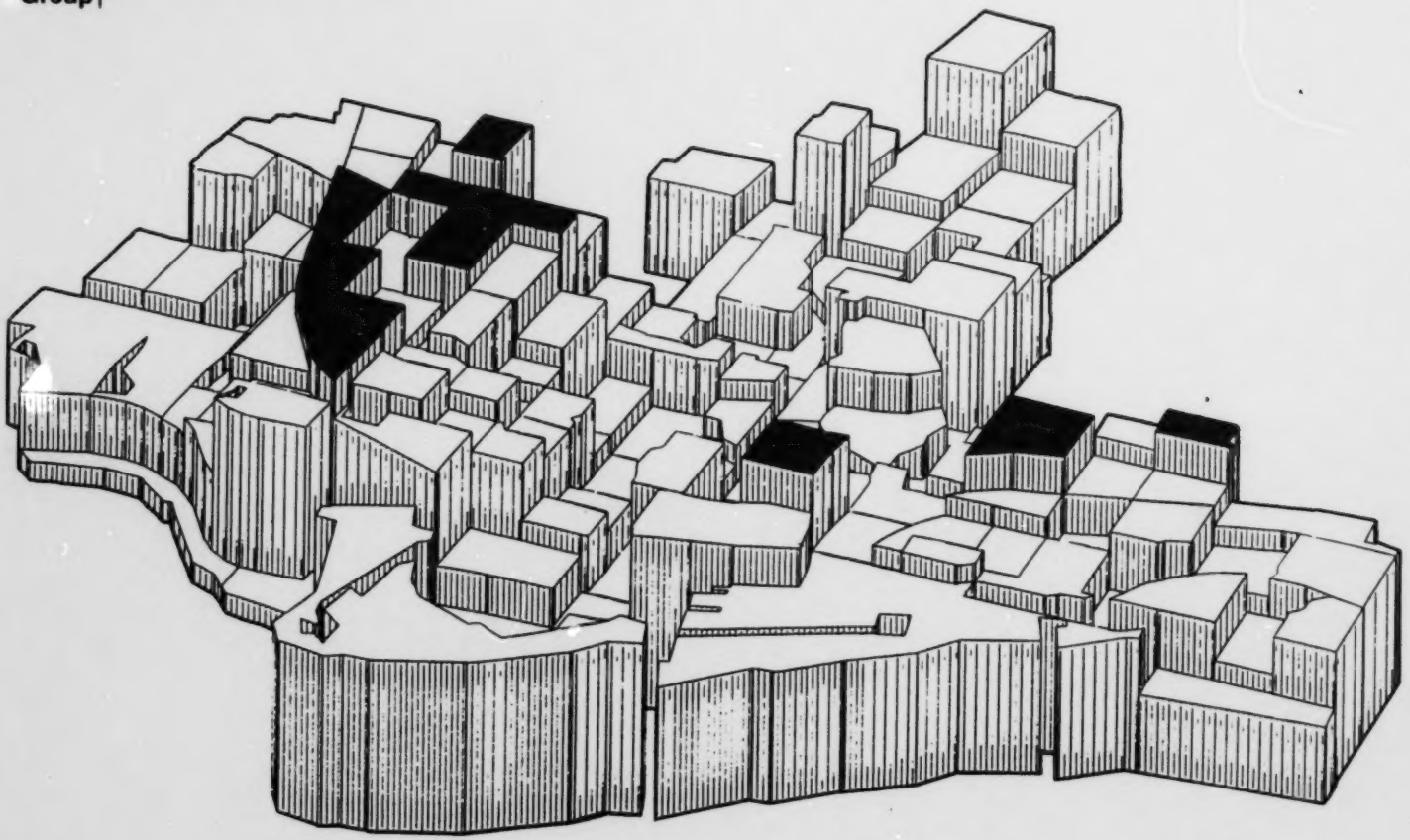


Downtown Health Area



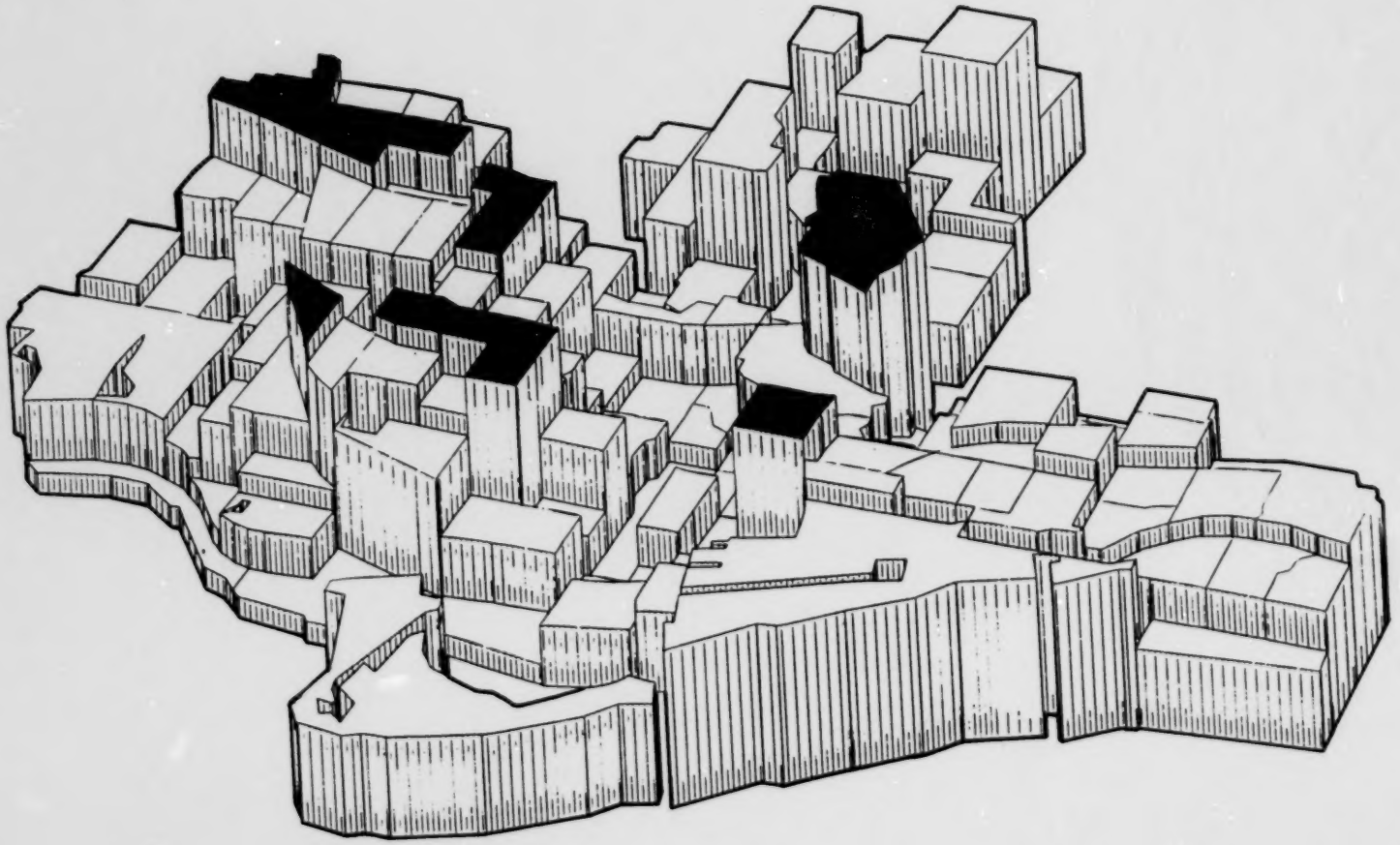
Northern Health Area

Figure 3: Census Tracts with the Highest Proportion (≥ 7.4%) of their Population in the 0-4 Year Old Age Group†



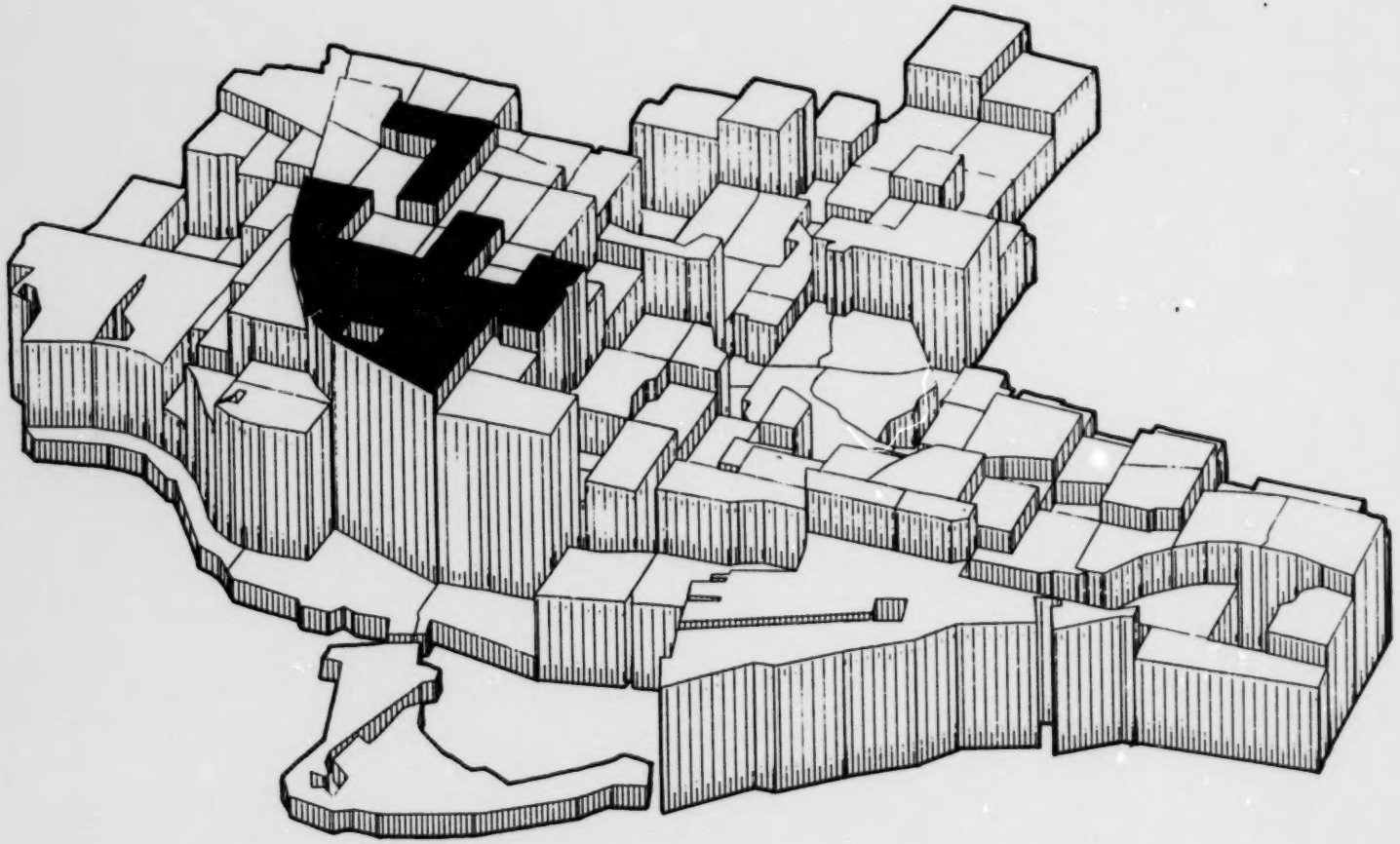
*90th percentile
†Source:1981 Canada Census

Figure 4: Census Tracts with the Highest Proportion (≥ than 10.3%) of their Population in the 15-19 Year Old Age Group†



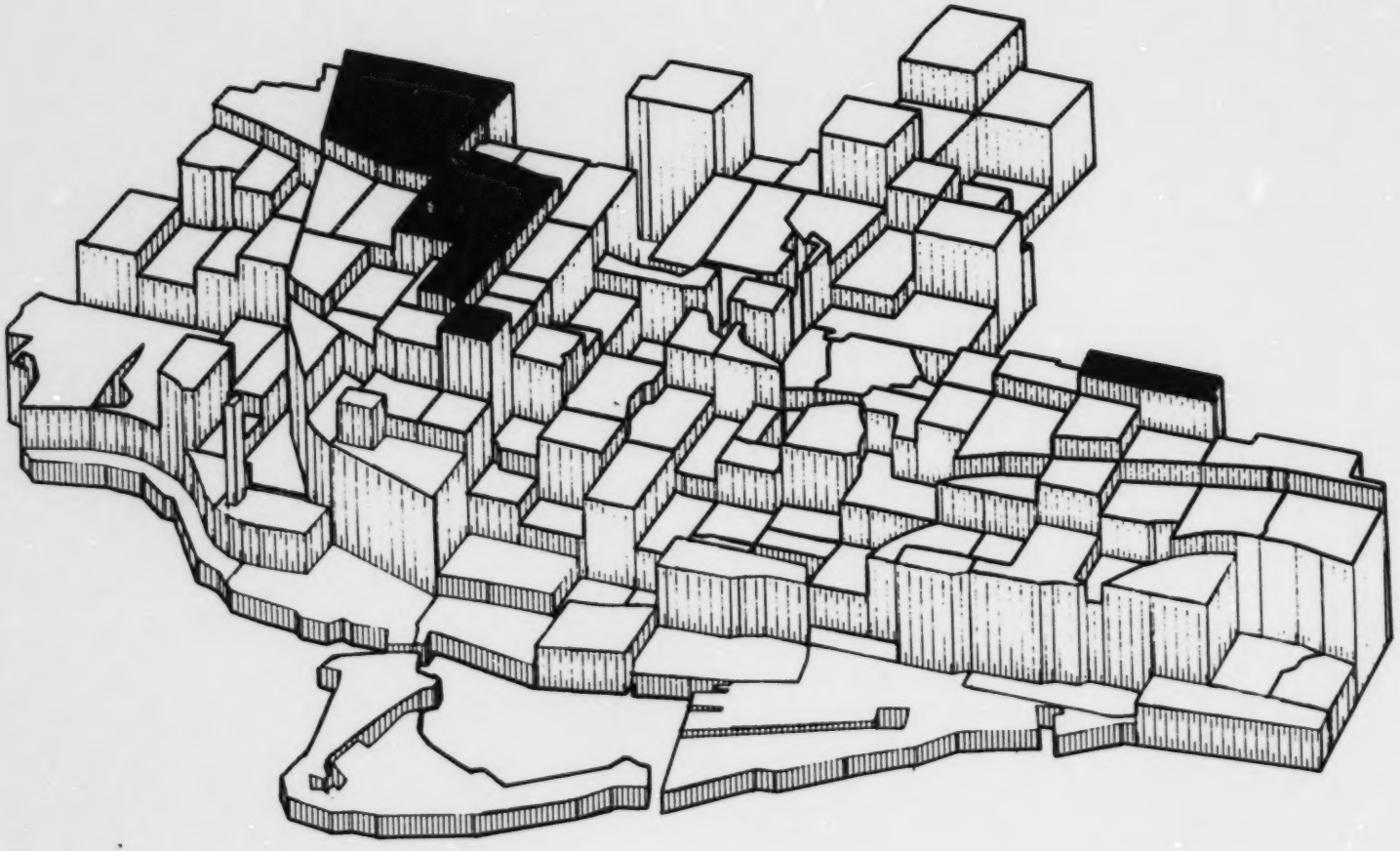
*90th percentile
†Source:1981 Canada Census

Figure 5: Census Tracts with the Highest Proportion (≥ 27.7%) of their Population with Portuguese Mother Tongue†



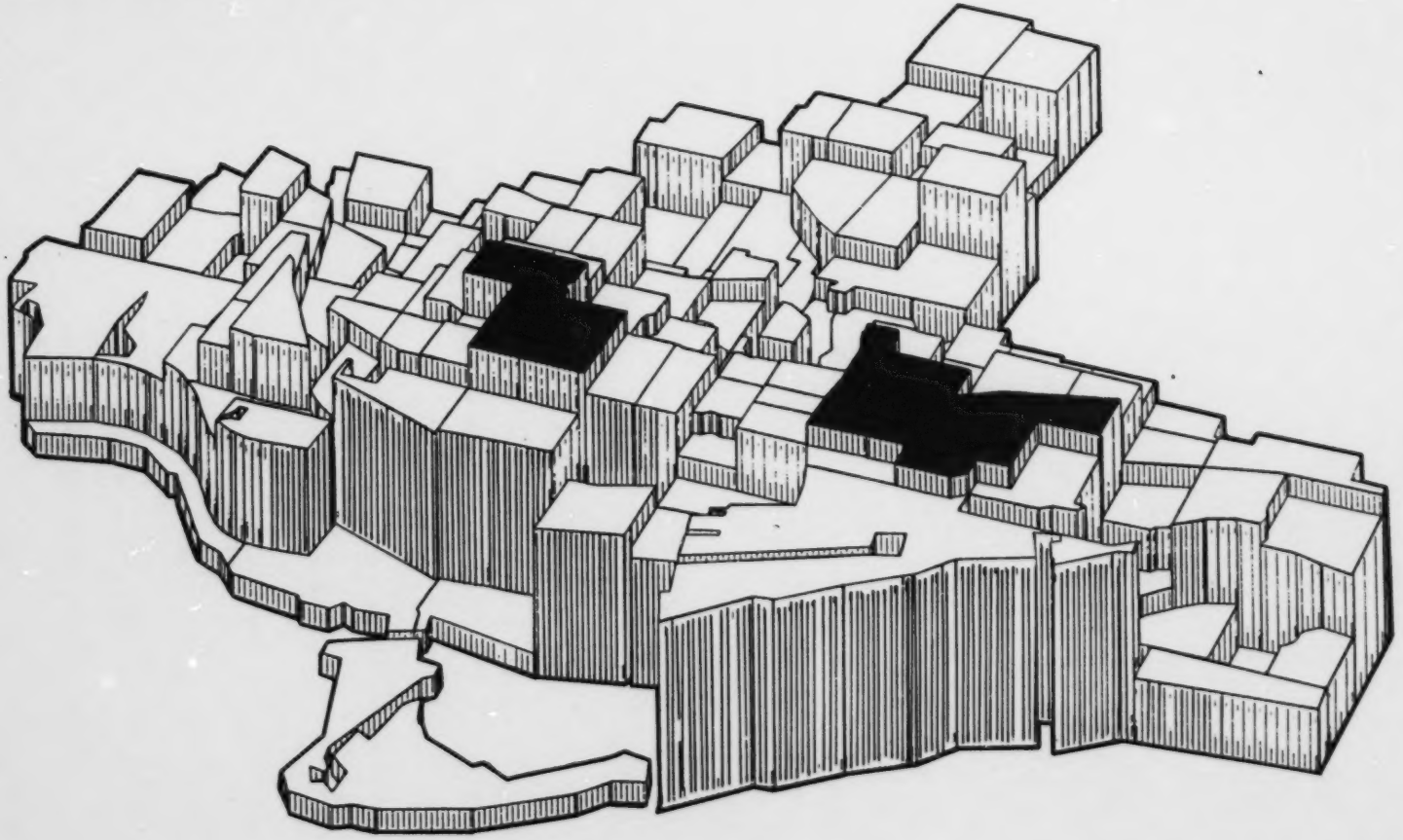
*90th percentile
†Source:1981 Canada Census

Figure 6: Census Tracts with the Highest Proportion (≥ 19.7%) of their Population with Italian Mother Tongue†



*90th percentile
†Source:1981 Canada Census

Figure 7: Census Tracts with the Highest Proportion (≥ 9.2%) of their Population with Chinese Mother Tongue †



*90th percentile
†Source:1981 Canada Census

Natality

Abortions

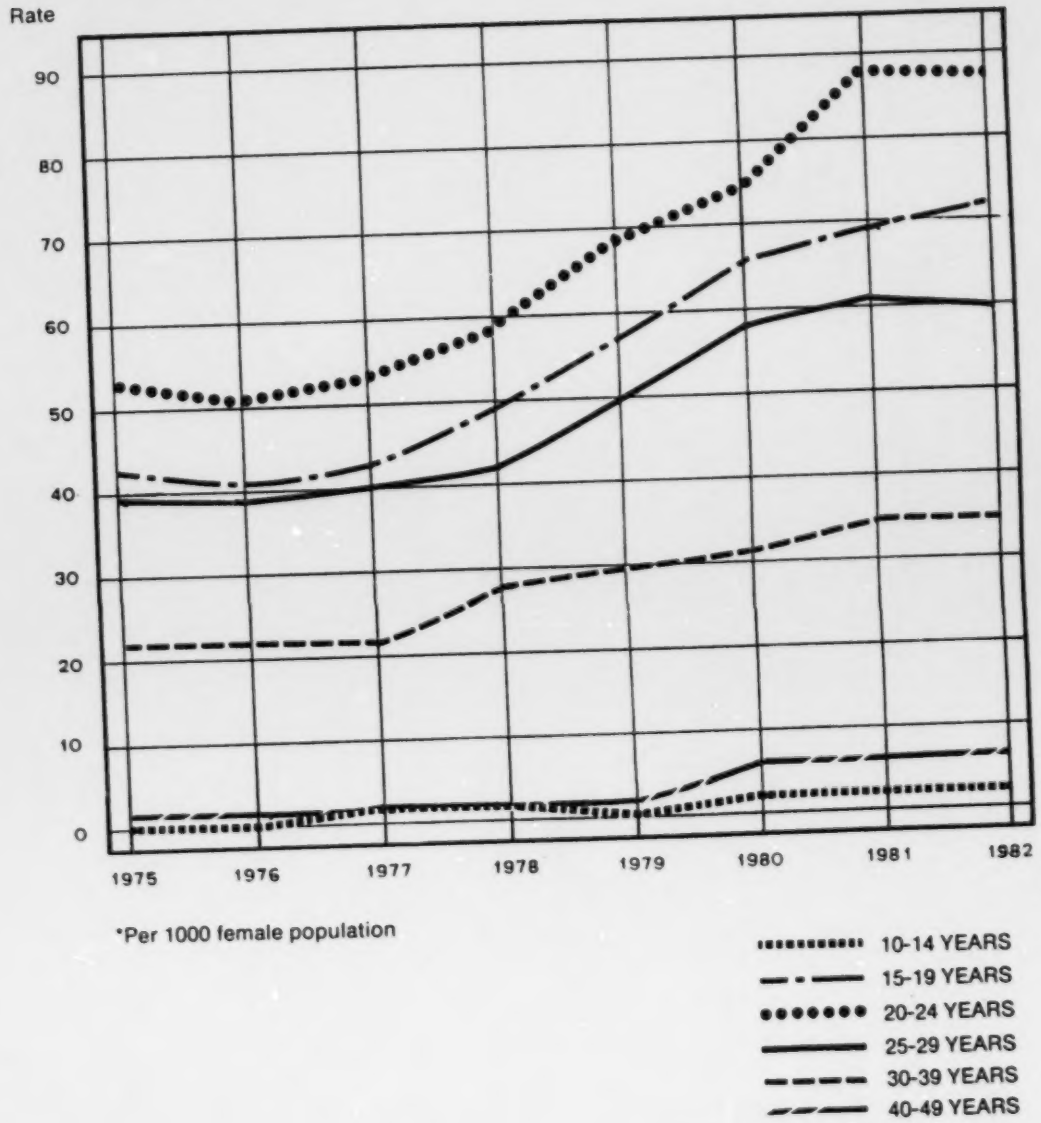
Both numbers of abortions and trends in pregnancy outcomes are useful indicators to suggest avenues for preventive programmes in family planning. Data on therapeutic abortions (the induced termination of pregnancy before the twentieth completed week of gestation for legally or medically approved indications) are obtained from the Ministry of Health through the hospital therapeutic committees for those abortions which were performed in Ontario hospitals. Therefore, an out-of-province abortion will not be counted in our statistics. In addition, it is known that a certain proportion of abortions are misassigned to the City of Toronto when they actually occur to residents from other municipalities within Metropolitan Toronto (Appendix 2).

During 1982, a total of 8,166 abortions were reported for City residents (Table 2). This is a 52.7% increase from 1975, although a slight decrease since 1981 (1.8%). As Figure 8 shows there has been a gradual increase in abortions in all age groups, except the youngest and oldest, over the past seven years, with a leveling off in 1982.

In general, younger single women (under 30) have the highest number of abortions. The 20-24 year old age group has shown a sizeable rise in abortions between the years 1975 and 1982 (from a rate of 52.9 per 1,000 women age 20-24 in 1975 to 87.8 in 1982). Girls aged 15-19 also have increased their abortion rate from 42.6 in 1975 to 72.0 in 1982. The pregnancy rate for these groups, however, is much more level, illustrating the effect of the declining birth rates in offsetting the rising abortion rates. Overall, what is happening for these younger women is a shift from completion to termination of pregnancy.

A similar, although more moderate, increase is evident for the women in the 25 to 29 year old age group. While the rate for live births declined from 105.7 per 1,000 in 1975 to 78.5 in 1982 in this age group, the abortion rate

Figure 8: Age-Specific Abortion Rates* for the City of Toronto, 1975-1982



*Per 1000 female population

Table 2: City of Toronto Changes in Pregnancy Outcomes, 1975 and 1982

Pregnancy Outcomes	1975	1981	1982	% Change 1975-1982	% Change 1981-1982
Number of live births	10,053	7,597	8,033	-20.1	+5.7
Number of stillbirths	113	50	59	-47.8	+18.0
Number of therapeutic abortions	5,349	8,313	8,166	+52.7	-1.8
Total pregnancies*	15,515	15,960	16,258	+4.8	+1.9

* Does not include spontaneous abortions

Table 3: Therapeutic Abortions Performed on City of Toronto Residents By Marital Status and Age Group, 1982

Age Group	Married + Common-law	Single	Divorced + Separated	Widowed	Total
10-14	1	34	0	0	35
15-19	79	1,389	9	0	1,477
20-24	524	2,024	126	1	2,675
25-29	682	1,068	198	5	1,953
30-34	604	449	193	7	1,253
35-39	310	182	94	4	590
40-44	113	26	20	4	163
45-49	15	1	4	0	20
All ages	2,328	5,173	644	21	8,166

Table 4: Length of Gestation of Abortions to City of Toronto Residents by Age Group, 1982

	Gestation Period			
Age Group	1 to 12 weeks	13 to 25 weeks	Total	% Completed After First Trimester
10-14	25	10	35	28.6
15-19	1,202	275	1,477	18.6
20-24	2,360	315	2,675	11.8
25-29	1,782	171	1,953	8.8
30-34	1,170	83	1,253	6.6
35-39	549	41	590	6.9
40+	168	15	183	8.2
Total	7,256	910	8,166	11.1

rose from 39.8 to 59.3 in the same period.

Abortion rates begin to level off after age 30, simultaneous with an upsurge in births to this group. The birth rate for women 30-34 has been rising steadily since 1976 (from 64.9 to 75.2) at the same time as there has been a moderate rise in abortions.

For women in their late thirties the rate continues to be relatively low, but there are variations from year to year. Women over 40 have shown the least change over time.

Despite declines in live births and stillbirths (see Table 2) the number of pregnancies for all age groups has risen almost 5% since 1975.

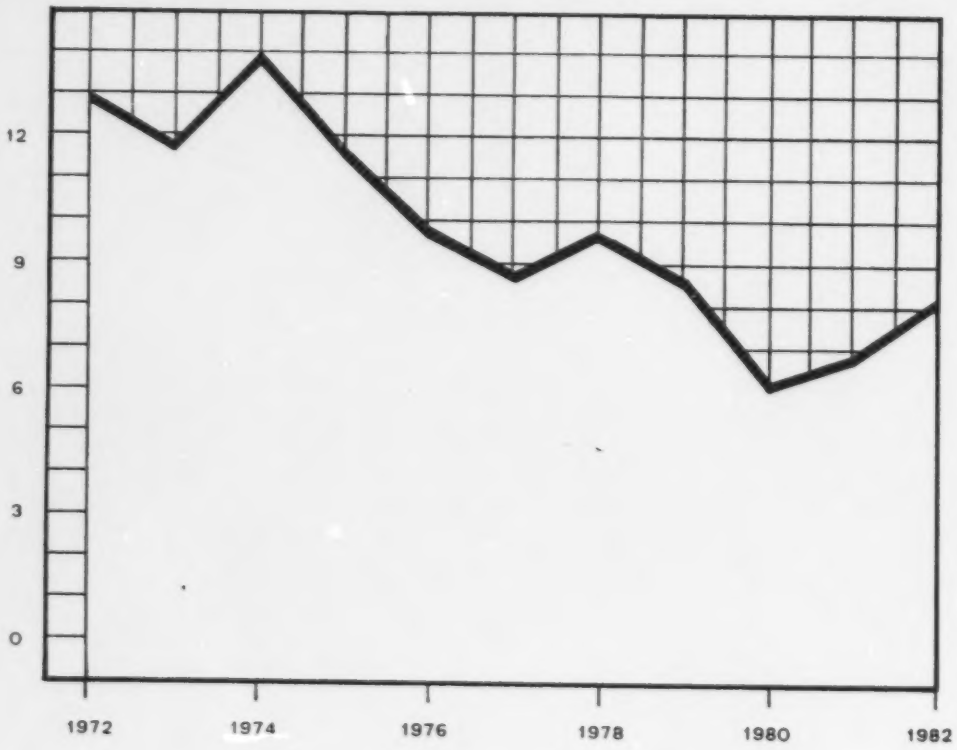
Up to the age of thirty, most abortion patients are single, while over that age, the majority are married or involved in stable relationships (Table 3). Since 1975 the numbers of abortions for both groups have risen, but at very different rates. Abortion rates to single women have increased 78% since 1975 compared to only a 23% rise for married women.

Table 5: Number of Repeat Abortions to City of Toronto Residents by Age Group, 1982

	Number of Previous Abortions				% Having One or More Previous
Age Group	0	1	2+	Total	Abortions
10-14	34	1	0	35	2.9
15-19	1,315	140	14	1,469	10.5
20-24	2,095	469	74	2,638	20.6
25-29	1,442	390	88	1,920	24.9
30-34	895	252	81	1,228	27.1
35-39	433	109	39	581	25.5
40+	137	29	16	182	24.7
All Ages	6,351	1,390	312	8,053*	21.1

* Information on previous abortions unknown for 113 women

Figure 9: Still Birth Ratios* for the City of Toronto, 1972 - 1982



*Per 1000 live births

An important health aspect of abortion is the timing, since procedures done after the first trimester (over 13 weeks after a woman's last menstrual period) offer a much greater risk of complications. In 1982, 11.1% of abortions to Toronto women were done after the first trimester. However, almost 29% of the abortions to girls 10-14 were after the first trimester, and almost 19% occurred at this time for women aged 15 to 19 (Table 4). This would suggest that an important component of family planning programmes is to ensure widespread awareness and availability of services so that necessary care can be initiated as early as possible.

Although changes in numbers of abortions are useful measures of family planning practice, an even more suggestive figure is the number of repeat abortions. In 1982 21% of procedures were given to women who had had at least one previous abortion (Table 5). Over one in ten adolescents had already had one prior abortion, while one in five women in their early twenties and approximately one in four women in their thirties were in this category.

Stillbirths

In 1982 there were 59 stillbirths for a ratio of 7.3 per 1,000 live births (Table 6). This was an increase from 1981 in which the stillbirth ratio was 6.6 (Figure 9).

Table 6: Stillbirths Among City of Toronto Residents, 1972-1982

	Stillbirths			Live	Stillbirth
	Male	Female	Total	Births	Ratio*
1972	78	64	142	11,400	12.5
1973	52	73	125	10,866	11.5
1974	57	80	137	10,269	13.3
1975	60	53	113	10,053	11.2
1976	48	46	94	9,436	10.0
1977	47	27	74	8,958	8.3
1978	45	35	80	8,230	9.7
1979	38	30	68	7,906	8.6
1980	36	13	49	8,103	6.0
1981	20	29	50+	7,597	6.6
1982	31	28	59	8,033	7.3

* Per 1,000 live births

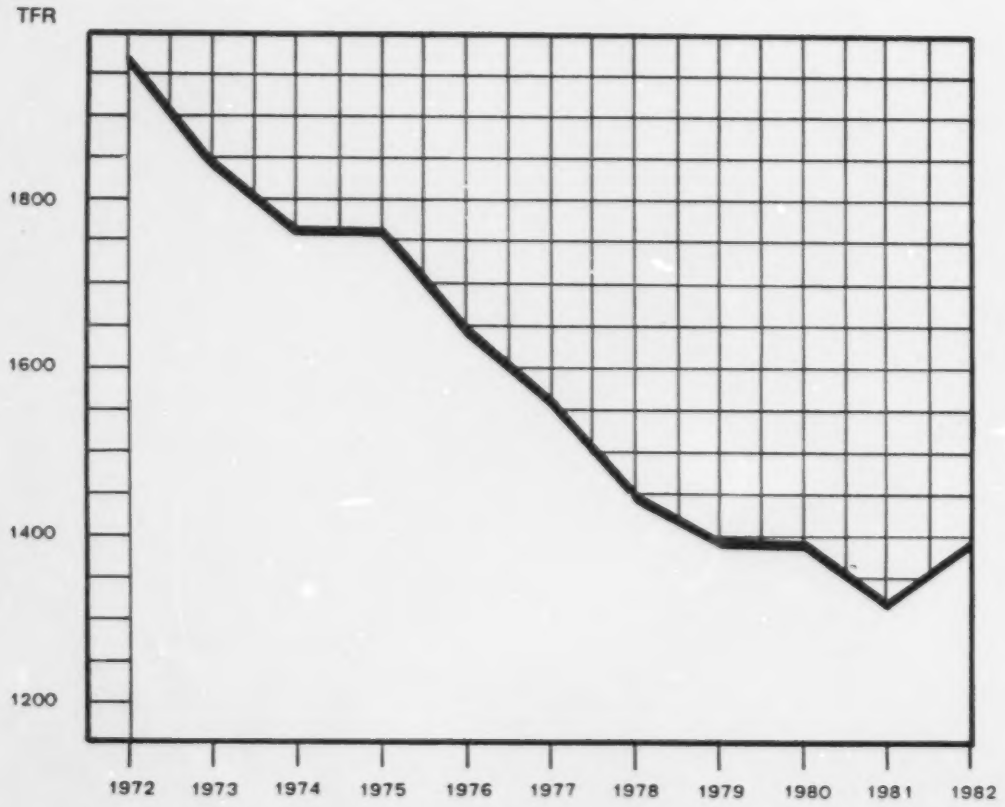
\+ Data on sex not available for 1 stillbirth

Live Births

1982 saw an increase of 5.7% in the number of live births since 1981. There were 8,033 live births among City of Toronto residents compared to 7,597 in 1981. This increase may be the result of delayed pregnancy in the post-World War II female cohort.

According to Table 7, 599 births (7.5%) were to mothers younger than 20 years of age. This is a very slight decrease in teenage births since 1981 when 7.8% of all births in that year

Figure 10: City of Toronto Total Fertility Rates (TFR)*, 1972-1982



*Mothers Age 15-49

were to teenagers. The mean age of mothers in 1982 was 27.5 compared to 27.4 in 1981. Most births (59.0%) occurred when the mother was between the ages of 25 and 34 (Table 7).

In 1982, 14.8% of all births were to single, widowed, or divorced women (Table 7). 56.3% of teenage mothers were single, and of the 1,087 births to single mothers in 1982, 31.0% (or 337) were teenagers. Teenagers were the only age group with a higher percent of single women than married women. In all other age groups, there were more births to married women.

Natality indicators of crude birth rate, general fertility rate (GFR), total fertility rate (TFR), and net reproductive rate (NRR) have been calculated for City of Toronto residents (Table 8). Each indicator demonstrates low fertility patterns in the City of Toronto. According to the trends in TFR (Figure 10), Toronto females have not replaced themselves since before 1972.

An examination of age-specific fertility rates in 1982 indicates a continued increase in 30-34 year olds and 35-39 year olds (Figure 11). Fertility rates in the age group 25-29 have also begun to increase. All other age groups have remained the same or decreased slightly (40-44 year olds).

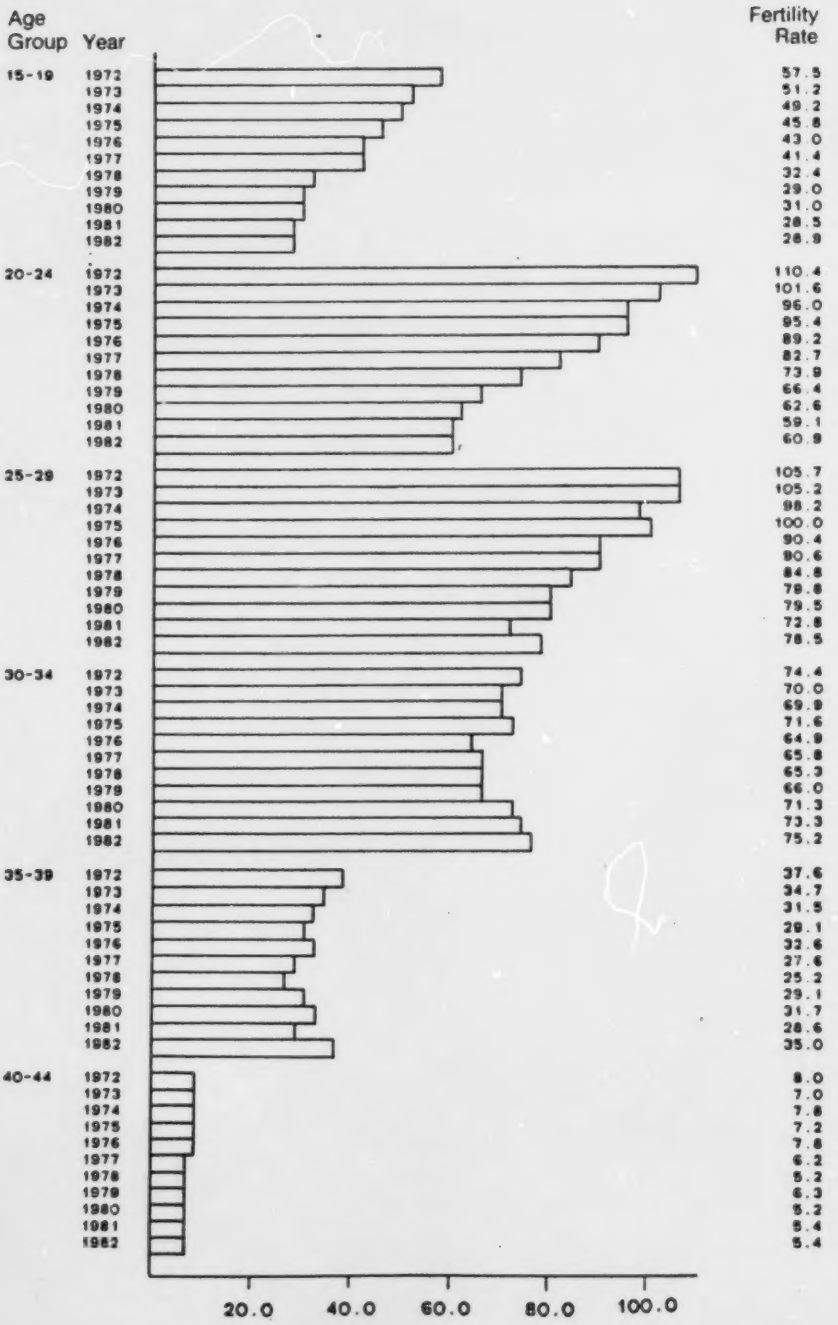
The newborn's birthweight is reported on all notifications of live birth. The birthweight is an important health indicator and is useful for evaluation of Department of Public Health maternal and child health programs, as well as for identification of problems throughout the City. As Table 9 indicates, there were 449 (or 5.6%) low birthweight (LBW) babies (less than 2500 grams) born in 1982. 10.5% of these LBW babies were born to teenagers.

As indicated in Figure 12, however, the LBW ratio has been decreasing over the past four years in the City of Toronto. In 1979 the LBW ratio was 6.7. This has steadily decreased to 5.6 in 1982.

Birthweights also can be examined spatially, i.e. throughout the City of Toronto according to the residence of the mother. Figure 13 shows the census tracts in the City with the highest percentage (the 90th percentile) of LBW babies born in 1979-1982 combined. Four years of births were combined because of the small numbers of annual births in some census tracts. This Figure indicates clustering of LBW census tracts through the central part of the City.

Other high risk pregnancy factors which can be examined spatially are shown in Figures 14 through 16. Census tracts with a high proportion of teen mothers are clustered in the southeastern part of the City (Figure 14). In 1979-1982 combined, census tracts with high concentrations of first births to mothers 35+

Figure 11: City of Toronto Age-Specific Fertility Rates,* 1972-1982



*Per 1000 women

Table 7: Births by Age and Marital Status of Mother, 1982

(Mean Age of Mother 27.5 years)

Age Group	Single	Married	Widowed	Divorced	Total	%
10-14	6	0	0	0	6	0.1
15-19	331	261	0	1	593	7.4
20-24	407	1,432	1	17	1,857	23.1
25-29	179	2,366	2	37	2,584	32.2
30-34	108	2,015	4	23	2,150	26.8
35-39	52	675	2	8	737	9.2
40-44	4	82	2	2	90	1.1
45-49	0	7	0	0	7	0.1
All Ages	1,087	6,838	11	88	8,024*	100.0

* Missing values for 9 births

Table 8: City of Toronto Natality Indicators, 1982

Crude birth rate*	13.5
General fertility rate+	48.3
Total fertility rate**	1,422.0
Net reproductive rate++	0.68

* Number of births per 1,000 population

\+ Number of births per 1,000 female population age 15-49

** Average number of children 1,000 women, age 15-49, would have if they experienced 1982 age-specific birth rates

\++ Indicates the extent to which a cohort of baby girls will replace themselves during their reproductive life span if they experience the 1982 age-specific fertility and mortality patterns

*Per 1000 women

years primarily were in the north and centre parts of the City (Figure 15). Mothers forty years of age and older mostly were concentrated in the centre and west (Figure 16).

Natality in the Four Health Areas

As already noted, since reorganization of the Department of Public Health into four Health Areas, an attempt was made not only to analyze data at the census tract level, but also to aggregate census tracts into the four Health Areas of the City. An example of Area analysis is shown for 1982 birth statistics in Table 10.

According to this Table, the NHA had the lowest percentage of teenage mothers (5.0%), while the other three Areas were above the percentage for the City as a whole. The NHA also had the oldest mothers according to the following natality indicators: 1) births to mothers 40+; 2) mean age of mother; and 3) first births to mothers 35+.

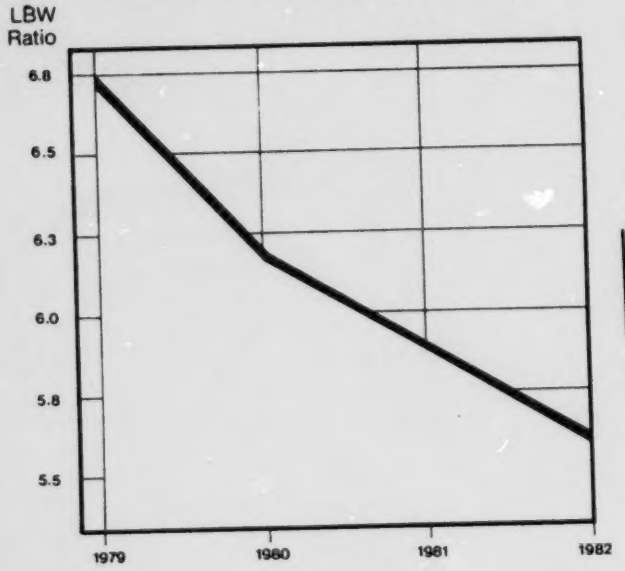
On the other hand, the highest percentage of LBW babies was in the DHA (7.6%), compared to 5.6% for the City as a whole.

Table 9: Birthweight (in grams) by Age of Mother, 1982 Births

Age of Mother	1000	1000-2499	2500-3499	3500-4499	4500+	Total
10-14	0	0	5	1	0	6
15-19	4	43	378	159	9	593
20-24	11	112	1,103	604	27	1,857
25-29	10	117	1,474	943	40	2,584
30-34	8	90	1,142	864	46	2,150
35-39	6	40	363	314	14	737
40-44	0	7	48	32	3	90
45-49	0	1	4	2	0	7
Total	39	410	4,517	2,919	139	8,024*

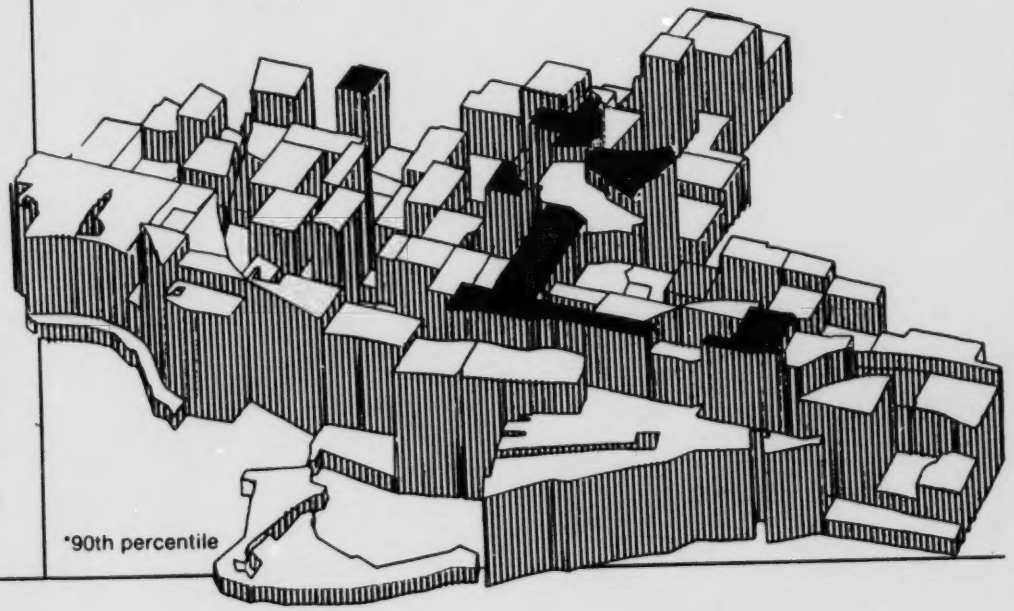
* 9 missing values for age of mother

Figure 12: Trends in Low Birthweight (LBW) Ratios* in the City of Toronto, 1979-1982



*Percent of births less than 2500 grams

Figure 13: Census Tracts with the Highest Proportion (≥ 9.0%)* of Low Birthweight Infants (< 2500 grams), 1979 - 1982



*90th percentile

Morbidity

Sexually Transmitted Disease (STD)

According to the statistics collected in the Toronto Department of Public Health, there was a decrease in reported STD among Toronto residents (Table 11). In 1982, 3,862 cases of gonorrhea were reported to the Department of Public Health (a decrease of 5.8% since 1981) and syphilis reports decreased by 32.8% (408 cases were reported in 1982 compared to 607 in 1981). Since methods in data collection have changed in the Toronto Department of Public Health in the past year, it may be necessary to wait another year before verifying that these diseases are decreasing. However, it is also possible that a concern about AIDS (acquired immune deficiency syndrome) has caused a decrease in sexual activity among male homosexuals with multiple partners, one of the groups at high risk, and, therefore, a decrease in STD.

As is usually the case with STD, substantially more STD was reported in males than in females in 1982 (Table 12). For gonorrhea, there were three times as many cases in males than in females. For syphilis, the sex ratio in 1982 was almost 4:1.

The greatest number of reported cases of gonorrhea occurred in the age group 20-24 (31.8%) (Figure 17). On the other hand, the 25-29 year olds had the greatest number of reported cases of infectious syphilis (24.9%) (Figure 18).

As Figure 19 indicates, the rate of gonorrhea in males has decreased in every age group but the youngest since 1981. The gonorrhea rate decreased in females 15-19 years of age, but there was no change in the rate for females in the other age groups (Figure 20).

As for infectious syphilis, the rate for males decreased in every age group except the youngest, where there were no cases (Figure 21). Infectious syphilis rates in females were low in 1981 and decreased further in 1982 (Figure 22).

The City of Toronto continues to account for a major proportion of venereal disease in the province of Ontario (40.2% of all cases of syphilis in 1982, and 23.6% of all cases of

Figure 14: Census Tracts with the Highest Proportion (≥ 14.8%)* of Teen Mothers, 1979 - 1982

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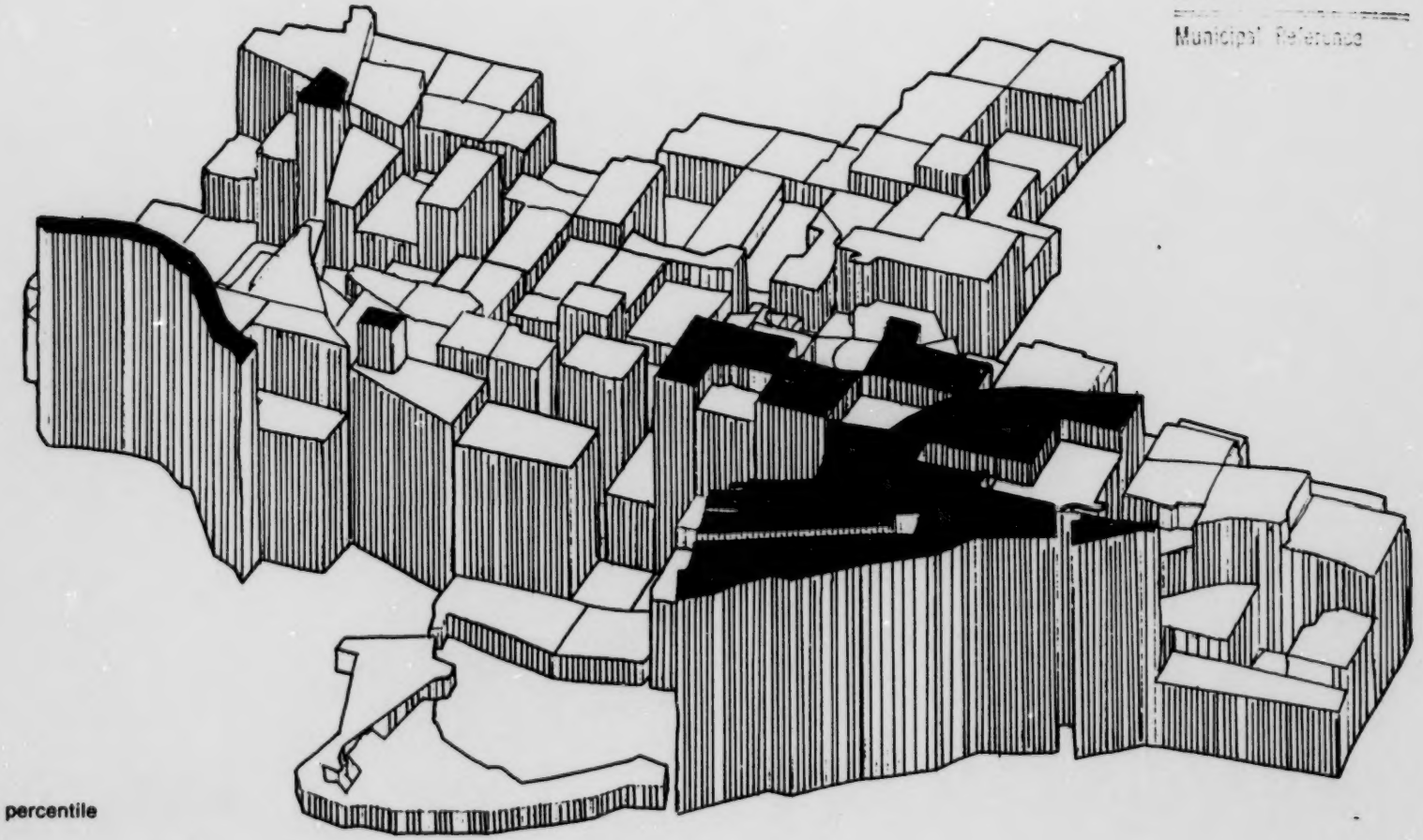
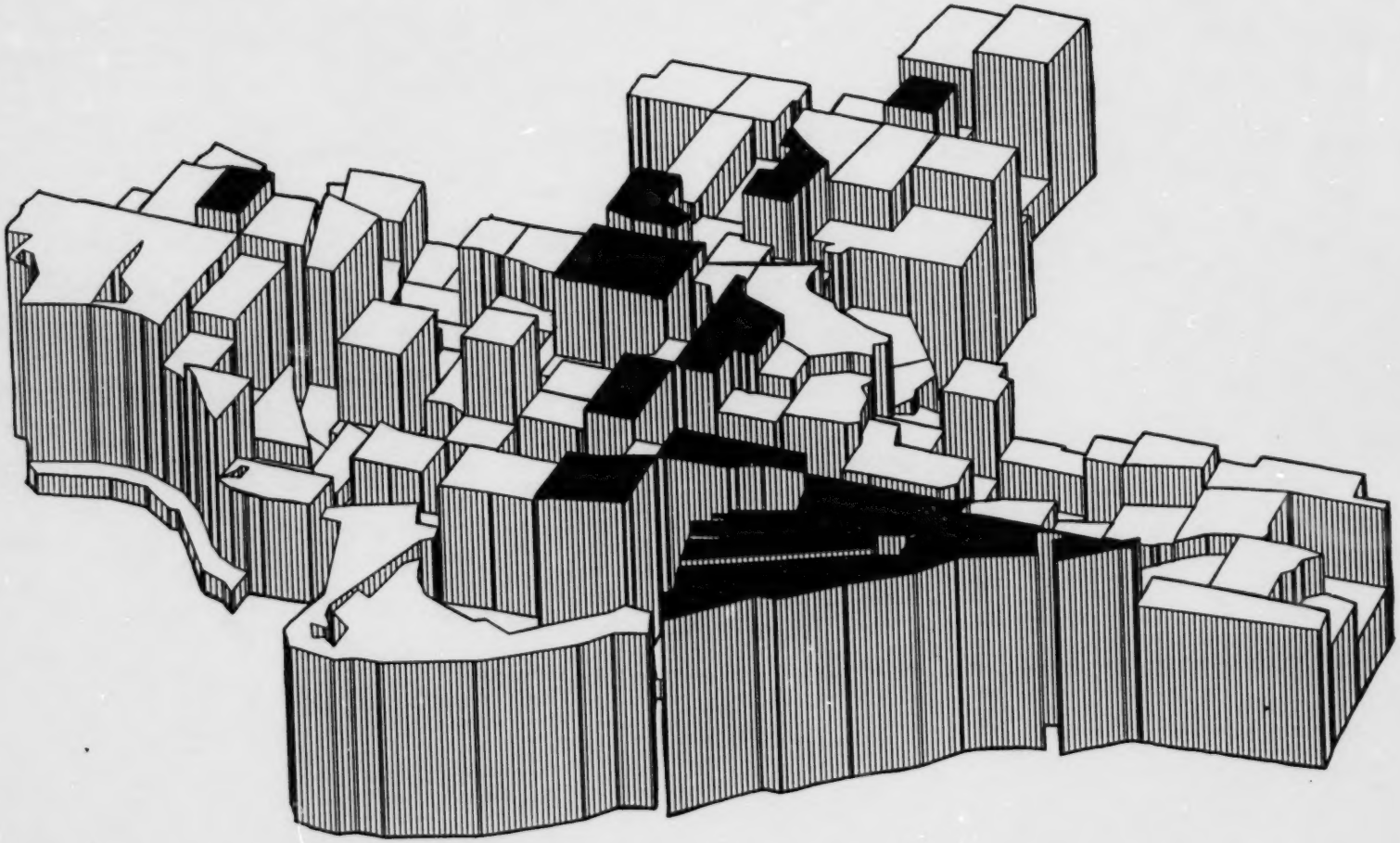


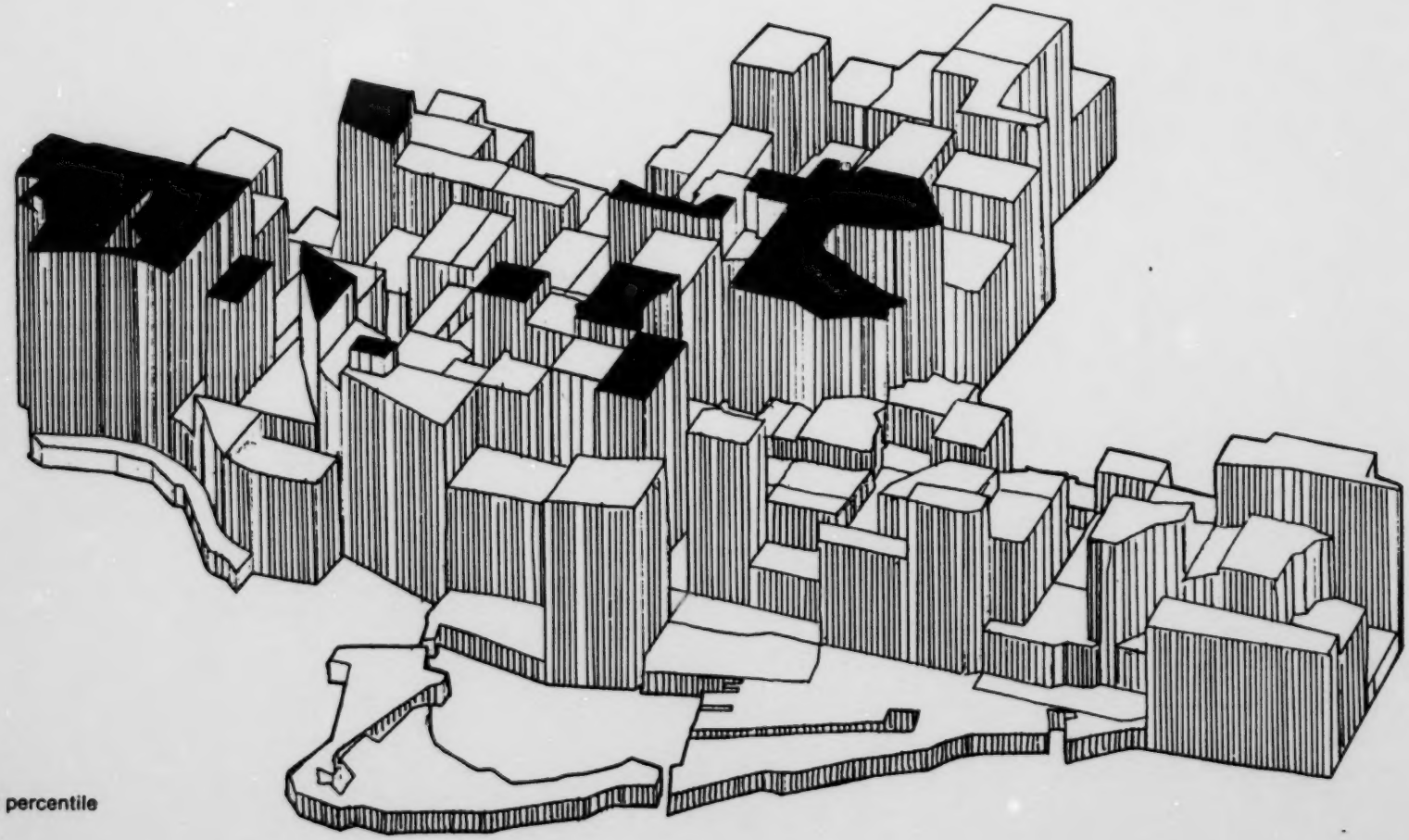
*90th percentile

Figure 15: Census Tracts with the Highest Proportion (≥ 9.1%)* of First Births to Mothers 35+ Years, 1979-1982



*90th percentile

Figure 16: Census Tracts with the Highest Proportion (≥3.7%)* of Births to Mothers 40 + Years of Age or Older



*90th percentile

Table 10: Summary of Birth Indicators for Health Areas and the City of Toronto, 1982

Birth Indicator	WHA	NHA	DHA	EHA	City
Total number and % of births	2529 (31.5)	2563 (31.9)	1055 (13.1)	1886 (23.5)	8033 (100.0)
Number (%) of mothers <15 years	1 (0.04)	7 (0.27)	6 (0.57)	1 (0.05)	15 (0.19)
Number (%) of mothers <20 years	205 (8.1)	128 (5.0)	98 (9.3)	177 (9.4)	608 (7.6)
Number (%) of mothers 40+	31 (1.2)	38 (1.5)	12 (1.1)	16 (0.8)	97 (1.2)
Mean age of mother	27.0	28.5	27.2	27.1	27.5
Number (%) of first births to mothers 35+*	57 (4.4)	105 (8.3)	38 (6.6)	44 (4.5)	244 (5.9)
Number (%) of births which are a result of a 3rd+ pregnancy	413 (16.3)	463 (18.1)	180 (17.1)	303 (16.1)	1,359 (16.9)
Number (%) of low birthweight babies (< 2500 grams)	130 (5.1)	126 (4.9)	80 (7.6)	115 (6.1)	451 (5.6)
Number (%) of high birthweight babies (≥ 4500 grams)	42 (1.7)	51 (2.0)	11 (1.0)	35 (1.9)	139 (1.7)
Mean birthweight (in grams)	3333.3	3381.4	3267.5	3319.5	3336.7
Total Fertility Rate (15-49)	1,758.9	1,196.1	1,092.5	1,752.8	1,422.0
Stillbirth Rate+	8.3	7.0	2.8	9.0	7.3

* Denominator: total number of first births

\+ Per 1,000 live births

gonorrhea) (Table 13). However, it should be remembered that reporting is at least as important a determinant of disease rates as lifestyle in the case of STD.

Tuberculosis

It can be seen from the data that both the number of cases and rates of tuberculosis among City of Toronto residents has increased since 1981 (Tables 14 and 15). The number of new cases has increased by 24.4% and re-activated cases by 31.3% since 1981. Overall, there was a 26.7% increase in the rate of tuberculosis. However, the female rate increased by 46.0%, and males by only 15.6%. These changes in rates may be misleading since 1981 showed an unusual drop in reported cases.

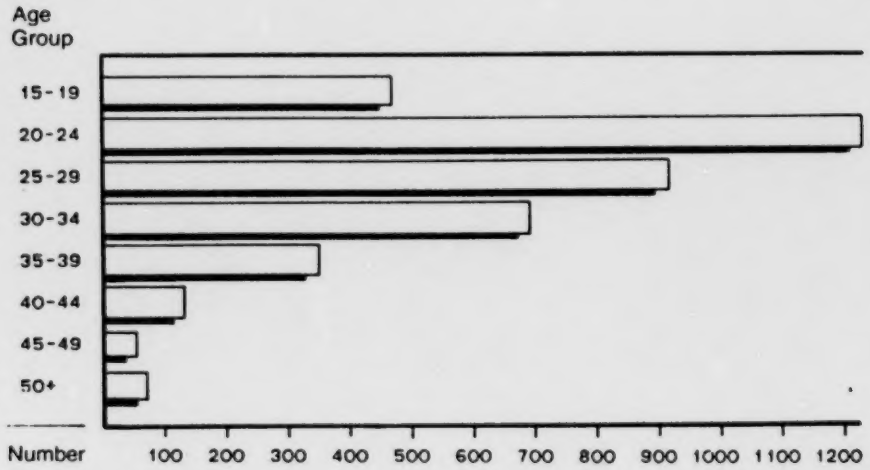
The highest percent of tuberculosis occurred in 25-34 year olds and in the 70+ year old age group (Figure 23, Table 16). Although the female rate increased since last year, males, nevertheless, accounted for a higher percent of the disease (57.3% in males vs. 42.7% in females) (Table 16, Figure 23). Minimal and moderately advanced tuberculosis accounted for 63.2% of all classifications of disease in 1982 (Table 17).

This year, a census tract analysis of tuberculosis has enabled the Department of Public Health to compare tuberculosis in the four Health Areas. The Downtown Health Area and the Northern Health Area had the same number of reported cases of tuberculosis (49 cases). However, the DHA had the highest rate (52.9 cases per 100,000 population) (Table 18), while the rate for the Northern Health Area was much smaller (22.5 per 100,000). The WHA had the lowest rate of tuberculosis.

Other Reportable Communicable Disease

This year, only those communicable diseases designated for notification or expected to be designated by the Ministry of Health are included on Table 19. Despite the requirement by law to report these diseases, it can be seen that under-reporting is a problem. For example, only 24 cases of influenza were reported to the Department of Public Health in 1982, and 21 of

Figure 17: Reported Gonorrhea by Age Group in City of Toronto Residents 1982*



*Age missing for 22 cases

Figure 18: Reported Infectious Syphilis by Age Group in City of Toronto Residents, 1982

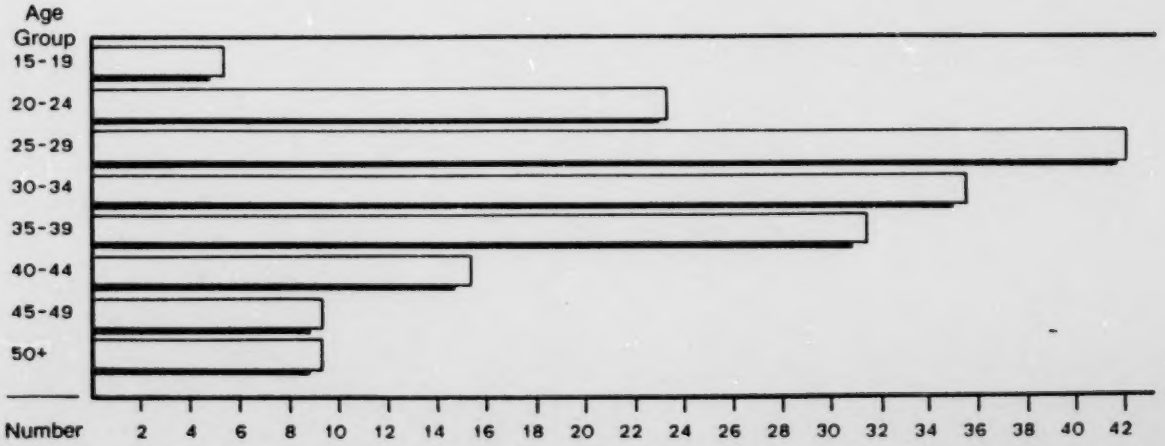


Figure 19: Reported Male Gonorrhea Rate by Age Group in City of Toronto, 1972-1982

Per 100,000 population

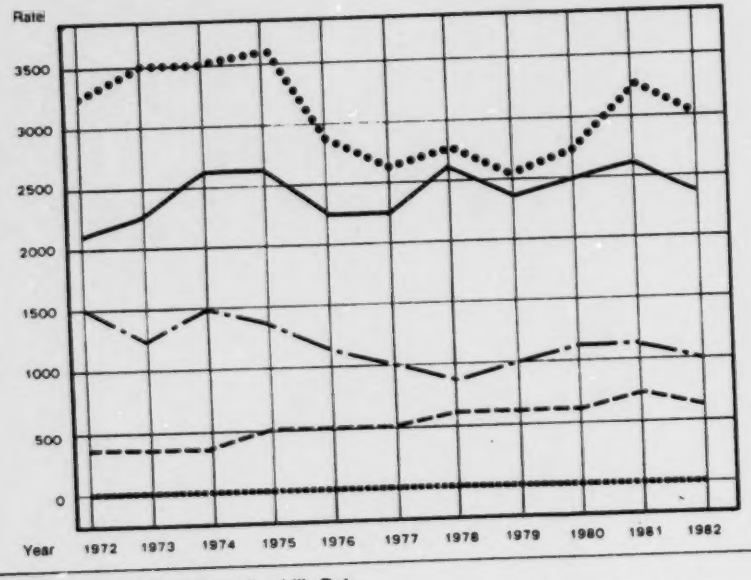


Figure 20: Reported Female Gonorrhea Rate by Age Group in City of Toronto, 1972-1982

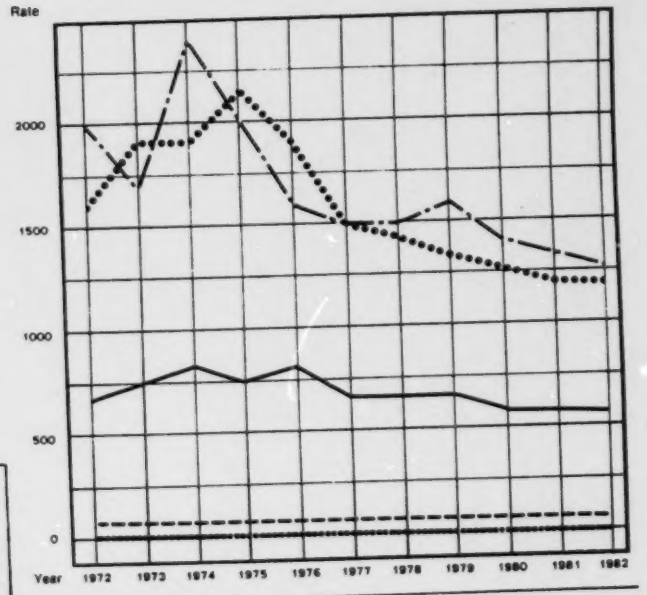


Figure 21: Reported Infectious Syphilis Rate in Males by Age Group

Per 100,000 population

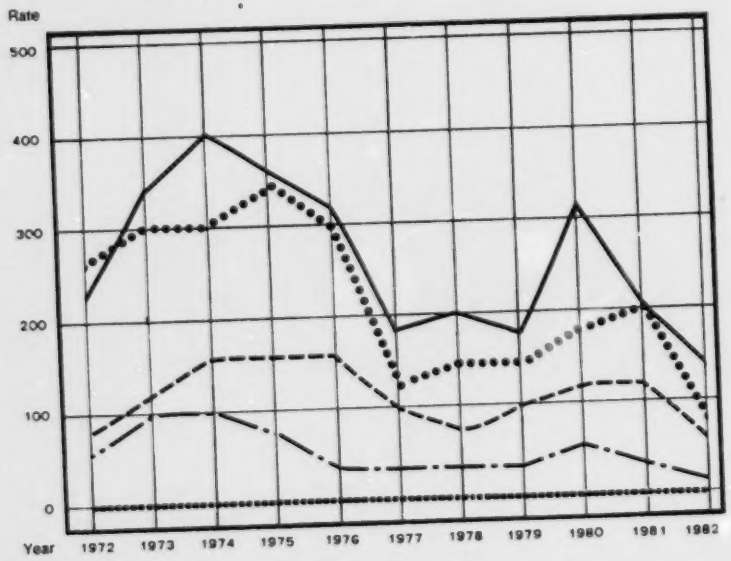


Figure 22: Reported Infectious Syphilis Rate in Females by Age Group in City of Toronto, 1972-1982

Per 100,000 population

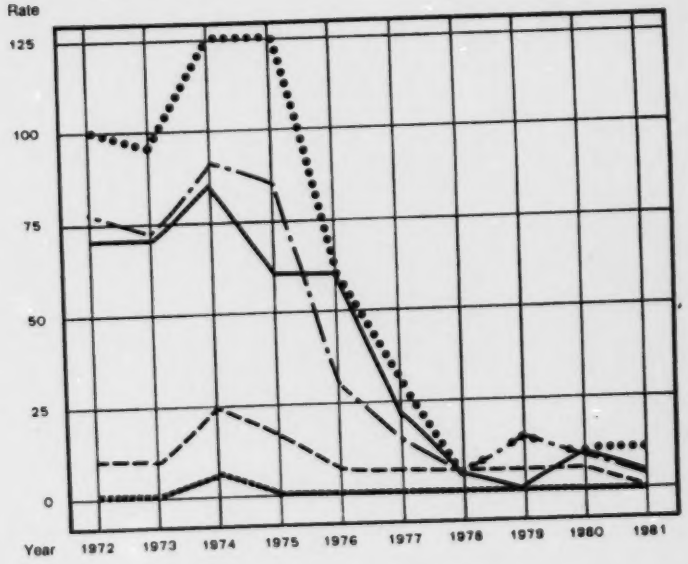


Table 11: Number of Cases and Rates* of Reported Sexually Transmitted Disease Among City of Toronto Residents, 1978-1982

Disease Classification	1978		1979		1980		1981		1982	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate+
Primary syphilis	127	20.8	153	25.2	168	27.9	148	24.9	84	14.1
Secondary syphilis	124	20.4	145	23.9	210	34.9	166	27.9	85	14.3
Early latent syphilis	153	25.1	155	25.6	165	27.4	118	19.9	83	14.0
Latent syphilis	147	24.1	196	32.3	190	31.5	161	27.1	146	24.6
Other syphilis	12	2.0	9	1.5	10	1.7	14	2.4	10	1.7
Total infectious syphilis	251	41.2	298	49.2	378	62.7	314	52.9	169	28.4
Total syphilis	563	92.4	658	108.6	743	123.3	607	102.2	408	68.7
Gonorrhea	3,963	650.5	3,822	630.6	3,996	633.2	4,098	689.8	3,862	650.1
Lymphogranuloma venereum	0	-	2	0.3	-	-	1	0.2	5	0.8
Chancroid	0	-	1	0.2	-	-	2	0.3	1	0.2
Granuloma inguinale	0	-	-	-	-	-	-	-	1	0.2

* Per 100,000 population
\+ 1981 Assessment population used as denominator

these cases occurred in a chronic care hospital in the City of Toronto. While it is possible that many cases of influenza were never diagnosed by a physician, it is also possible that many physicians do not realize that influenza is a reportable disease.

Table 19 indicates that chicken pox, giardiasis, amoebiasis, and salmonellosis continue to have the highest rates among City of Toronto residents. With the exception of amoebiasis, however, rates have decreased for these diseases.

Rates have also increased for hepatitis B and whooping cough since 1981. A number of hypotheses can be proposed for each of these diseases, however, because reorganization may have affected reporting and case-finding, it is difficult to draw conclusions for either increases or decreases.

Nevertheless, we know that cases of hepatitis B were evenly distributed both before and after reorganization of the Department of Public Health. It is possible that the increase we are seeing is a result of an increase in the Southeast Asian population in the City of Toronto since Southeast Asians are known to have a carrier rate of Hepatitis B of 10-15% (2).

It is also possible that the expected availability of hepatitis B vaccine in 1982 prompted more aggressive screening in high risk groups. This increased screening might have led to an increase in reported cases.

Whooping cough appeared to increase since 1981, and in fact, this increase was identified specifically in the Northern Health Area of the City. While this increase likely was a real one, aggressive case-finding in the Northern Health Area likely augmented the number of cases reported.

In July, 1982 the Province of Ontario passed legislation (the *Immunization of School Pupils Act, 1982)*, which requires all Ontario pupils eighteen years and under to be immunized against the six designated diseases: diphtheria, tetanus, poliomyelitis, measles, mumps and rubella. Exemptions, however, for medical or religious reasons are accepted.

Both the number of cases and rate of measles have decreased substantially since 1925, and in 1982, an all-time low of 20 cases was reached (Figure 24). Measles, like other communicable diseases, is cyclical in occurrence, therefore, although the numbers and rates have been low in recent years, it is likely that there will be an increase again in 1984 or 1985.

Mumps also decreased in the City of Toronto (Figure 25). Only 28 cases of mumps among City residents were reported in 1982. On the other hand, like measles, we can expect another rise in the next year or so unless immunization levels are made to increase.

Diphtheria, polio and tetanus virtually have been eliminated in the City of Toronto. Nevertheless, it is important to take note of any reported cases of these diseases, and to continue close to universal immunization levels in the population.

Dental Morbidity

One important aspect of the City of Toronto Dental Programme is a dental survey on every seventh child who attends in the Toronto school system and whose age is an odd number. Dental staff in the Department examine each child's mouth for specific dental indicators related to dental caries, caries immunity, and tooth mortality (see Appendix 3). Figures 26 and 27 examine two of these indicators for specific age groups: 1) Proportion of Metro Born Children with Deciduous Tooth Mortality, Ages 5, 7, 9, 1971-1982 and; 2) Proportion of Children Apparently Immune to Caries on Permanent Teeth, Ages 9, 11, 13, 1971-1982. Figure 26 shows a decrease in deciduous tooth mortality until 1979 in all three age groups, but then an increase until 1982. The proportion of children apparently immune to caries increased between 1971 and 1978

Table 12: Reported Number of Cases of Syphilis, Gonorrhea, and Other Reportable Sexually Transmitted Disease, by Age Group and Sex, 1982

Diagnosis	0-14		15-19		20-24		25-29		30-39		40-49		50+		Age Unknown		All Ages	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Syphilis																		
Primary	0	0	2	0	9	2	22	1	33	1	11	0	2	1	0	0	79	5
Secondary	0	0	2	1	12	0	19	0	30	2	12	1	6	0	0	0	81	4
Early Latent	0	0	1	0	14	1	16	1	28	3	9	1	9	0	0	0	77	6
Latent	0	0	3	2	2	4	9	4	19	9	19	3	30	37	0	5	82	64
Other	0	0	0	0	0	2	0	1	0	0	0	1	4	2	0	0	4	6
Total	0	0	8	3	37	9	66	7	110	15	51	6	51	40	0	5	323	85
																		408
Gonorrhea and Ppng																		
Gonorrhea	4	11	201	261	856	363	717	187	890	121	152	16	51	7	14	8	2885	974
Ppng					1	1											1	1
Total	4	11	201	261	857	364	717	187	890	121	152	16	51	7	14	8	2886	975
																		3862*
Other Reportable STD (Lymphogranuloma Venereum, Chancroid, Granuloma Inguinale)																	6	1
																		7
Total																		4282+

* Sex unknown for 1 case

\+ Diagnosis not specified in 5 cases

(Figure 27). Since 1978, the proportion leveled off in children age 9, 11, and 13.

Hospital Morbidjty

1. General Morbidity

The hospital morbidity data covered in this section refer to numbers of separations of Ontario residents from general public hospitals in Ontario. The numbers represent hospital discharges rather than individual patients (see Appendix 2, Sources and Limitations of Data).

Tables 20 and 21 reveal important differences among the different age and sex groups. In fact, only in the youngest age category (0 to 9) is there a real convergence of major diagnoses between the two sexes. After the age of 10, females are more likely to be hospitalized for factors related to pregnancy and/or reproduction and this pattern holds throughout the childbearing years.

Even with the factor of childbearing removed, however, there are differences worthy of further study between the discharge diagnoses for men and women at most ages. Boys show a tendency to contract diseases of the tonsils and adenoids at an earlier age than girls (under 9 compared to over 10 for girls).

In the 40 to 49 year old age group, women show most discharges related to the genito-urinary system, menstrual disorders, neoplasms of the breast and uterus, etc., while men frequently enter the hospital for heart disorders.

While in the 50 to 59 year old age group disorders of female genitals and gallbladder continue to be major causes of hospitalization for women, overall there is more convergence between the two sexes. For instance, heart disease, respiratory system symptoms and disorders of the digestive system appear in the top 10 discharge diagnoses for both sexes. Nonetheless, the numbers for men continue to be much higher for these diseases than for women, as they are also for alcoholism and cirrhosis, cancer of the lung and trachea and hernia. Women, on the other hand, are much more likely to have gall bladder problems (cholelithiasis) than men.

For both men and women in the 60-69 year old age group, heart disease and cancer of the lungs and trachea are in the top ten category of hospital discharges.

A summary of the major categories of hospital discharge diagnoses for men and women are given in Tables 22 and 23. As expected, complications of pregnancy and childbirth is the primary diagnosis for women, constituting 25.1% of all hospital separations for females. (It should be noted that this category also includes normal deliveries of which there were 2,673 or 15.5% of that category.) Diseases of the genito-urinary system follow as a distant second at 9.7%. Among males, there is less difference in the proportions of separations for the top five disease categories. Diseases of the circulatory system - 15.2% of male separations - are followed by diseases of the digestive system (14.3%), respiratory system (10.9%) and injury and poisoning (10.8%).

Table 13: Reported Cases of Syphilis and Gonorrhea for City of Toronto and Province of Ontario Residents, 1978 - 1982

	Syphilis			Gonorrhea		
Year	Toronto	Ontario	Toronto as a % of Ontario	Toronto	Ontario	Toronto as a % of Ontario
1978	563	1,577	35.7	3,963	15,859	25.0
1979	658	1,653	39.8	3,822	16,658	22.9
1980	743	1,759	42.2	3,996	16,055	24.9
1981	607	1,477	41.1	4,098	17,200	23.8
1982	408	1,014	40.2	3,862	16,384	23.6

Table 14: Number of Tuberculosis Cases Reported to City of Toronto Department of Public Health, 1972 - 1982

Year	New Cases	Re-Activated	Unknown	Total
1972	242	45	-	287
1973	271	48	-	319
1974	282	25	-	307
1975	243	30	-	273
1976	233	27	-	260
1977	198	11	-	209
1978	177	14	-	191
1979	178	14	-	192
1980	159	11	-	170
1981	119	16	-	135
1982	148	21	2	171

Table 15: Number of Cases and Crude Rates* of Tuberculosis by Sex Among City of Toronto Residents, 1978 - 1982

	Male		Female		Total	
Year	No. Cases	Rate	No. Cases	Rate	No. Cases	Rate
1978	n.a.+	n.a.	n.a.	-	191	31.4
1979	115	39.2	77	24.6	192	31.7
1980	n.a.	-	n.a.	-	170	28.2
1981	85	29.5	50	16.3	135	22.7
1982	98	34.1	73	23.8	171	28.8

* Per 100,000 population ** 1982 rates are based on 1981 assessment population
+ not available

In addition to the number of cases discharged by diagnoses, another useful measure is hospital utilization by category of disease. Table 24 shows the top seven diagnoses that accounted for over 60% of all hospital days during 1981/82. As can be seen from this table, the top three diagnoses were those related to the circulatory system, cancer and mental disorders. In terms of the mean number of days per separation, however, the ranking changes. For instance, mental disorders consume the highest number of days per client (23.0), followed by circulatory system disorders (15.5) and cancer (14.9). Although complications of pregnancy and childbirth were fifth in accounting for the total number of hospital days, the mean days per client for this diagnosis was only 5.0.

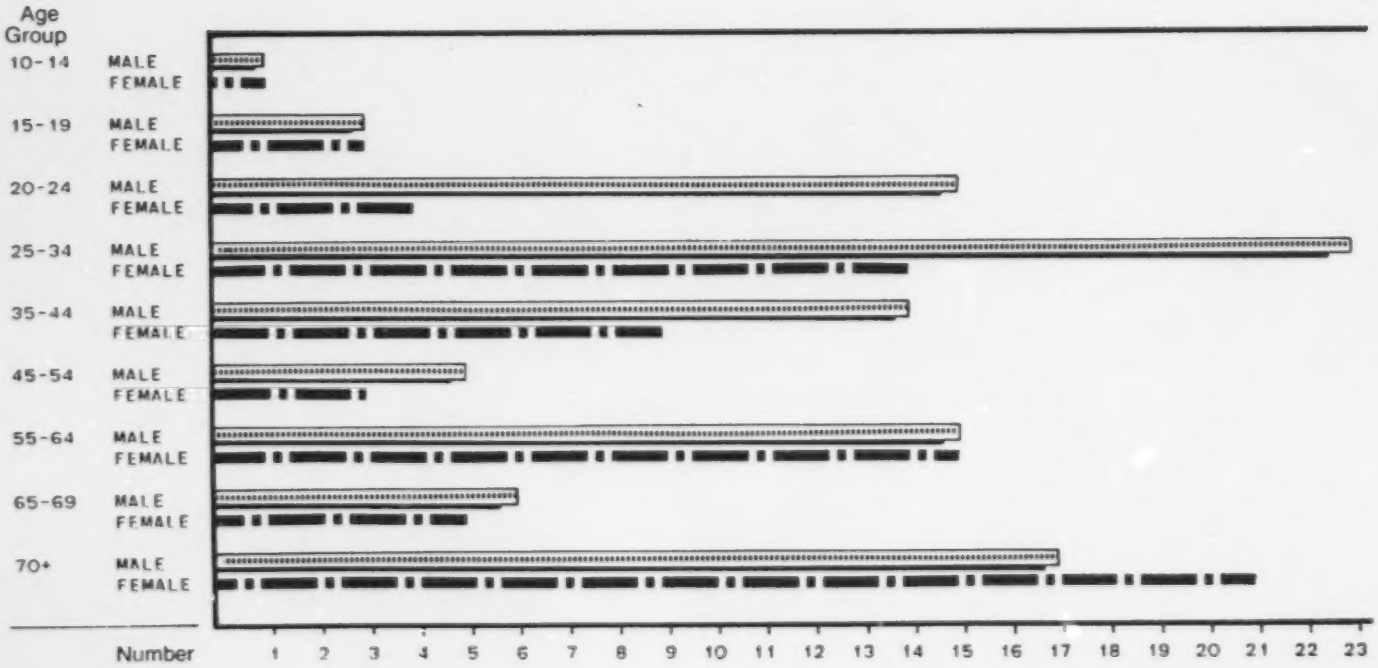
2. Psychiatric Discharges

Table 25 shows the major categories of discharges from psychiatric hospitals for City residents in 1981/82 by age group. Overall, there appears to be less of a distinction among the different age groups for psychiatric diagnoses than there were for other hospital discharges. The major five categories of diagnoses occur in each age group with the differences being mainly in degree. For example, schizophrenia comprises 29.1% of discharge diagnoses for the 15 to 44 age group, 20% for those 45 to 64, and only 7.1% for patients over 65 years. Personality disorders are salient for the younger age groups but diminish in importance with age. For instance, this diagnosis is given for 61% of 0-14 year olds but only for 18% of the over 65 group.

For young people under 14 years of age, personality disorders is the most common discharge diagnosis. For the next age group, those 15-44 years, schizophrenia and personality disorders predominate, followed by neuroses and psychoses. Patients in the 45 to 64 year old age group suffer almost equally from schizophrenia, neuroses, affective psychoses and personality disorders.

The majority of hospitalizations in psychiatric facilities occur among the 15 to 44

Figure 23: Number of Cases of Reported Tuberculosis by Age Group and Sex among City of Toronto Residents, 1982*



*Age missing for 1 case

Table 16: Distribution of Reported Tuberculosis by Age Group and Sex, 1982

Age Group	Male No.	Male %	Female No.	Female %	Total No.	Total %
14	1	1.0	1	1.4	2	1.2
15-19	3	3.1	3	4.1	6	3.5
20-24	15	15.3	4	5.5	19	11.1
25-34	23	23.5	14	19.2	37	21.6
35-44	14	14.3	10	13.7	23	13.5
45-54	5	5.1	2	2.7	8	4.7
55-64	15	15.3	14	19.2	30	17.5
65-69	6	6.1	5	6.8	11	6.4
70+	16	16.3	20	27.4	38	22.2
All ages	98	57.3	73	42.7	171	100.0

Table 17: Classification of Reported Cases of Tuberculosis, 1978 - 1982

Disease Classification	1978 No.	1978 %	1979 No.	1979 %	1980 No.	1980 %	1981 No.	1981 %	1982 No.	1982 %
Primary	-	-	1	0.5	6	3.5	1	0.7	3	1.7
Minimal	57	29.8	66	34.4	59	34.7	56	41.5	55	32.2
Moderately advanced	59	30.9	58	30.2	50	29.4	41	30.4	53	31.0
Far advanced	17	8.9	17	8.9	12	7.1	10	7.4	13	7.6
Miliary	2	1.0	3	1.6	-	-	1	0.7	2	1.2
Pleural effusion	11	5.8	8	4.2	4	2.4	6	4.4	5	2.9
Extrapulmonary	43	22.5	38	19.8	37	21.8	20	14.8	38	22.2
Meningitis	2	1.0	1	0.5	2	1.2	-	-	0	-
Other	-	-	-	-	-	-	-	-	2	1.2
Total	191	99.9*	192	100.1*	170	100.1*	135	99.9*	171	100.1*

* Does not equal 100.0% because of rounding

Table 18: Number of Reported Cases of Tuberculosis and Crude Rate* by Health Area, 1982

Health Area	No. Cases	Rate
WHA	30	18.7
NHA	49	22.5
DHA	49	52.9
EHA	42	34.4
City	171+	28.8

* Per 100,000 population (1981 assessment)
+ Census tract missing for 1 case

year old age group, although the average stay is much longer for those in the oldest age group (over 6 months compared to under two weeks for the youngest age group).

Table 26 gives the top six psychiatric diagnoses for all age groups. Not surprisingly, personality disorders and schizophrenia appear as the most common categories. What is more interesting is the wide range in the mean number of hospital days among the different diagnoses. Schizophrenia leads with 125.8 days compared to 27.1 days for neuroses.

Mortality

Introduction

Mortality indicators have major advantages over many other health indicators: they are universally used, and although subject to differences in cause of death recording among physicians throughout the world, the World Health Organization ICD-9 categories allow a comparability not always possible with other health information.

This year's Annual Statement will examine the traditional mortality indicators, as well as those used in the 1981 Health Status Report (see Appendix 3 for definitions). In addition, we have expanded our analysis to include direct standardized mortality rates over time (DSR), and a comparison of cause-specific mortality rates among the six Metro municipalities (using DSR's). Finally, the epidemiologic indicators of **time** and **place** are considered with analyses of cause-specific seasonality and the spatial distribution of mortality.

General Mortality Indicators - Age Group and Sex

In 1982 there were 5,000 deaths among City of Toronto residents. The general death rate (8.4 per 1,000 population) decreased by 2.3% since 1981.

Figure 28 is a breakdown of death by age group in 1982. Only 2.6% of all deaths occurred among residents less than 25 years of age. In

Table 19: Number of Reported Cases and Rates* of Designated Communicable Diseases, City of Toronto, 1981 and 1982

Disease	1981 No.	1981 Rate	1982 No.	1982 Rate
Amoebiasis	348	56.1	397	66.8
Brucellosis	0	-	2	0.3
Campylobacter enteritis+	117	19.7	175	29.5
Chicken pox	680	114.5	610	102.7
Cytomegalovirus infection	0	-	1	0.2
Escherichia coli	24	4.0	7	1.2
German measles	33	5.6	38	6.4
Giardiasis	565	95.1	489	82.3
Hepatitis				
A (Infectious)	33	5.6	39	6.6
B (Serum)	37	6.2	49	8.2
Non-A, Non-B (unspecified)	8	1.3	26	4.4
Serum carrier	27	4.5	23	3.9
Histoplasmosis	1	0.2	0	-
Influenza	5	0.8	24	4.0
Legionnaire's Disease	1	0.2	1	0.2
Leptospirosis	-	-	1	0.2
Listeriosis	-	-	2	0.3
Malaria	34	5.7	24	4.0
Measles	45	7.6	20	3.4
Meningitis				
Aseptic	3	0.5	0	-
Bacterial	6	1.0	5	0.8
Meningococcal	6	1.0	7	1.2
Viral	1	0.2	4	0.7
Meningococcemia	6	1.0	5	0.8
Mumps	33	5.6	28	4.7
Salmonellosis	420	70.7	309	52.0
Shigellosis	65	10.9	62	10.4
Toxoplasmosis	0	-	6	1.0
Typhoid fever	5	0.8	1	0.2
Whooping cough	77	13.0	135	22.7
Yersiniosis	12	2.0	10	1.7

* Per 100,000 population (1981 Assessment population used for 1981 and 1982)

+ Will be a Designated Communicable Disease in 1983

Figure 24: Trends in Rate* of Measles, City of Toronto, 1925-1982

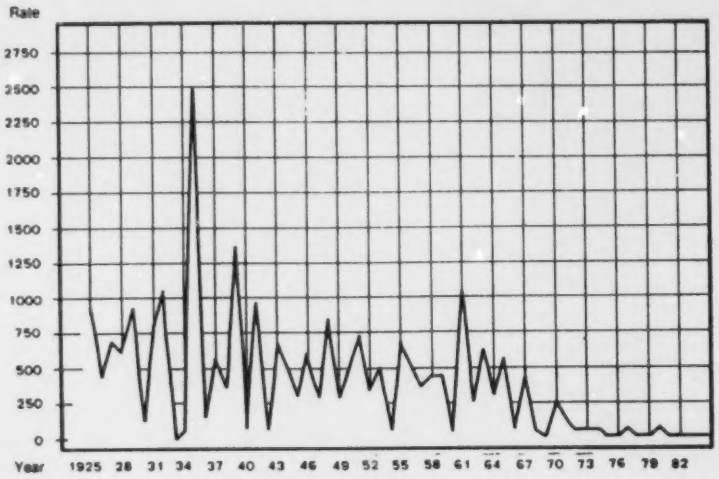
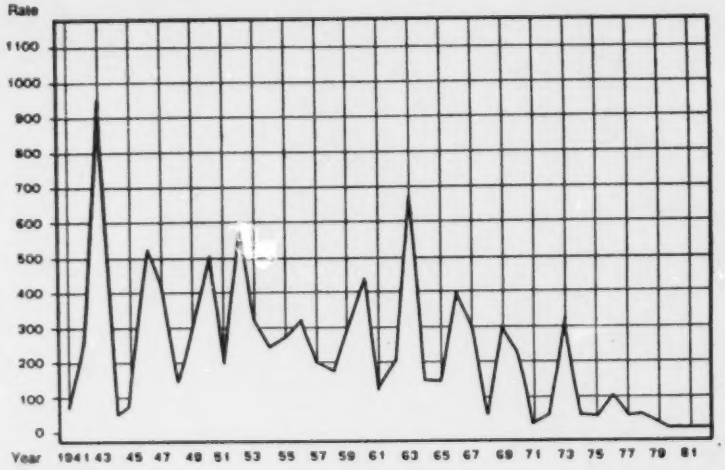


Figure 25: Trends in Rate* of Mumps, City of Toronto, 1941 - 1982



*Per 100,000 population

Table 20: Top 10 Hospital Discharge Diagnoses* in Toronto Males by Age Group, 1981/82*

	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
(1)	Tonsils and adenoid diseases (824)	Appendicitis (139)	Schizophrenia (216)	Hernia (185)	Hernia (221)	Ischaemic heart disease (488)	Ischaemic heart disease (560)	Hyperplasia of prostate (393)	Heart failure (162)
(2)	Asthma (332)	Tonsils and adenoids disease (131)	Deflected nasal septum (214)	Disorder of digestive system (138)	Ischaemic heart disease (196)	Hernia (371)	Hernia (377)	Ischaemic heart disease (349)	Hyperplasia of prostate (160)
(3)	Intestinal infection (277)	Deflected nasal septum (91)	Arthropathies (208)	Arthropathies (137)	Respiratory system symptoms (115)	Acute M.I. (239)	Hyperplasia of prostate (373)	Hernia (268)	Pneumonia (147)
(4)	Respiratory infection (270)	Skin infections (85)	Personality disorders (198)	Deflected nasal septum (118)	Disorders of digestive system (106)	Respiratory system symptoms (179)	Acute M.I. (282)	Cataract (233)	Ischaemic heart disease (139)
(5)	Otitis media (186)	Dislocation sprains (81)	Skin infections (163)	Schizophrenia (118)	Alcoholism (102	Cancer trachea lung (159)	Cancer trachea, lung (202)	Acute M.I. (230)	Cerebrovascular disease (134)
(6)	Hernia (130)	Lower limb fracture (80)	Teeth disease (159)	Personality disorders (113)	Urinary calculi (83)	Other heart disease (158)	Art. capillary disease (200)	Respiratory system disease (212	Cataract (118)
(7)	Bronchitis (128)	Upper limb fracture (79)	Dislocations and sprains (152)	Lower limb fracture (110)	Other heart disease (77)	Hyperplasia of prostate (140)	Other heart disease (189)	Cancer trachea lung (196)	Acute M.I. (102)
(8)	Congenital anomalies of circulatory system (105)	Respiratory tract disease (77)	Hernia (150)	Alcoholism (89)	Gastrointestinal ulcer (77)	Lower limb fracture (133)	Cataract (173)	Cerebrovascular disease (188)	Other heart disease (102)
(9)	Strabismus (99)	Personality disorders (77)	Appendicitis (143)	Dislocations and sprains (84)	Lower limb fracture (76)	Digestive system disease (128)	Respiratory system disease (170)	Heart failure (181)	Lower limb fracture (90)
(10)	Appendicitis (40)	Asthma (74)	Lower limb fracture (132)	Respiratory tract disease (83)	Acute M.I. (75)	Alcoholism (125)	Heart failure (168)	Cancer of prostate (165)	Cancer of prostate (90)
TOTAL CASES 5001		2919	5103	4442	4156	6987	7544	6294	3167
MEAN DAYS 5.5		6.8	8.2	9.3	11.2	12.8	13.9	16.1	16.5

Numbers in parentheses refer to number of discharges

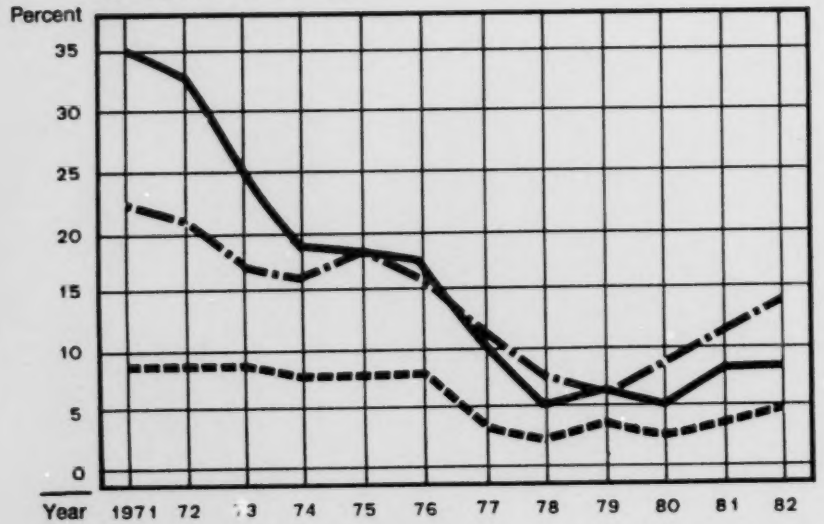
* Source: Ministry of Health

Table 21: Top 10 Hospital Discharge Diagnoses* in Toronto Females by Age Group, 1981/82*

	0-9	10-19	20-29	30-39	40-49	50-59	60-69	70-79	80+
(1)	Chronic tonsils and adenoid diseases (618)	Therapeutic abortion (397)	Complications of labour and delivery (2,796)	Complications of labour and delivery (1,599)	Menstrual disorder (467)	Female genital disorders (420)	Ischaemic heart disease (284)	Cataract (486)	Lower limb fracture (468)
(2)	Intestinal infection (208)	Complications of labour and delivery (353)	Delivery disorder (1,837)	Delivery disorder (164)	Female genital disorders (352)	Cholelithiasis (223)	Cataract (268)	Ischaemic heart disease (335)	Cataract (297)
(3)	Asthma (192)	Disease of tonsils and adenoids (303)	Normal delivery (1616)	Normal delivery (836)	Neoplasm of uterus (300)	Ischaemic heart disease (172)	Breast cancer (215)	Lower limb fracture (315)	Heart failure (262)
(4)	Acute upper respiratory infections (154)	Complications pregnancy (257)	Therapeutic abortion (1,189)	Other abortions (622)	Cholelithiasis (152)	Menstrual disorder (114)	Cholelithiasis (202)	Cerebrovascular disease (247)	Ischaemic heart disease (260)
(5)	Otitus media (114)	Delivery disorder (226)	Complications of pregnancy (1,144)	Therapeutic abortion (578)	Disorders of reproduction and delivery (137)	Acquired musculoskeletal deformities (110)	Disorder of female genitals (166)	Heart failure (225)	Cerebrovascular disease (249)
(6)	Strabismus (77)	Normal delivery (196)	Disorders of ovary (536)	Reproduction and delivery (577)	Disorder of breast (112)	Fracture of lower limb (107)	Lower limb fracture (163)	Acute M.I. (215)	Pneumonia (186)
(7)	Acute bronchitis (63)	Disorder of ovary (194)	Disorders of female genitals (407)	Complications of pregnancy (540)	Affective psychosis (99)	Rheumatism (102)	Acute M.I. (145)	Other heart disease (186)	Acute M.I. (152)
(8)	Disorders of short gestation (60)	Teeth disease (134)	Personality disorders (284)	Disorders of female genitals (496)	Breast cancer (96)	Respiratory system symptom (96)	Respiratory system disease (128)	Cholelithiasis (153)	Other heart disease (144)
(9)	Congenital anomalies of circulatory system (59)	Personality disorders (119)	Teeth disease (280)	Menstrual disorder (460)	Neuroses (86)	Digestive system disorder (90)	Other heart disease (127)	Respiratory disease (142)	Disorder of digestive system (118)
(10)	Enteritis and colitis (56)	Appendicitis (107)	Menstrual disorder (279)	Disorder of ovary (262)	Disorder of ovary (75)	Other heart disease (86)	Cancer trachea, lung (124)	Digestive system disorder (133)	Cholelithiasis (75)
Total Discharges	3226	4546	16450	11835	5621	6460	7057	7683	5797
Mean Days in Hospital	5.9	5.8	5.9	6.5	9.8	11.8	14.4	17.8	21.5

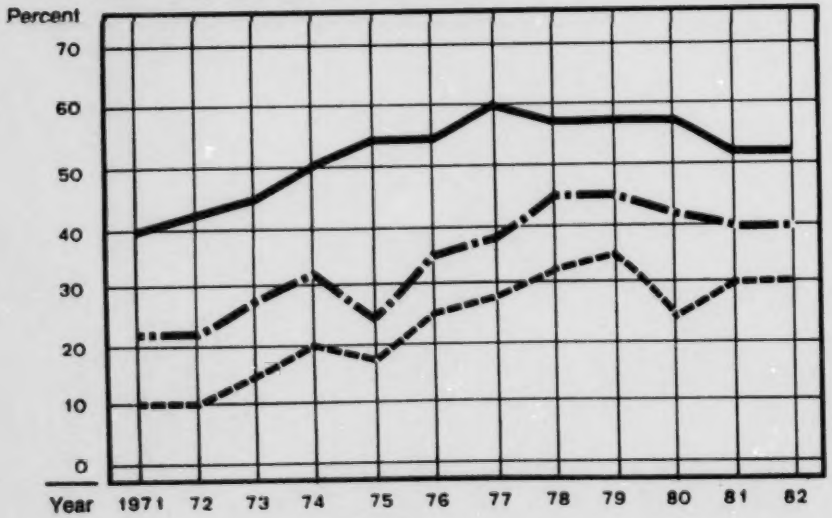
Numbers in parentheses refer to number of discharges • Source: Ministry of Health, 1983

Figure 26: Percent of Metro Born Children with Deciduous Tooth Mortality* Ages 5, 7, 9, 1971-1982



*Percentage of children having one or more deciduous tooth or tooth crown lost due to dental crisis

Figure 27: Percent of Children Apparently Immune to Caries on Permanent Teeth, Ages 9, 11, 13, 1921-1982



1981 2.9% of deaths were among those less than 25.

On the other hand, the percent of deaths to those 75 years of age and older was 47.1% in 1982 compared to 46.7% in 1981.

Infant Mortality

There has been a drastic decrease in infant mortality since 1950 and even before. (Figure 29, Table 27). 1982 continues that decrease with 61 infant deaths compared to 64 in 1981. It should be noted, however, that the rate of death between 1 and 7 days has increased slightly since 1981 and so has the rate of death between 7 and 28 days. On the other hand, the natal day rate (death under 1 day of age), which likely is affected by more sophisticated technological advances at the time of birth, has decreased. In addition, the period between 28 days and 12 months has also shown a decrease in rate per 1,000 live births.

Major Causes of Death

The major causes of death in the City of Toronto can be determined in a number of ways. Figure 30 indicates the major causes of death according to the number of deaths by sex. Figure 31 examines the potential years of life lost (PYLL), which is another method for determining the important causes of death (3).

According to Figure 30, myocardial infarction (MI) and ischaemic heart disease (IHD) were the two leading causes of death in 1982 for males and females. Lung cancer was number three for males, while it was in sixth place in females. Suicide was the seventh leading cause of death in males in 1982 (in 1981 it was ninth), and was sixteenth for females.

A different picture can be seen, however, when considering potential years of life lost. MI is still number one in males (Figure 31), but suicide becomes number two, and is the number one cause of death in females. Lung cancer remains approximately the same. However, motor vehicle accidents are now major causes of death in males (number-five) and in females (number three).

Table 22: Major Hospital Discharge Diagnosis Categories in Males, 1981/82* +

Diagnosis Categories	No. of Cases	%
Diseases of circulatory system	6,940	15.2
Diseases of digestive system	6,543	14.3
Diseases of respiratory system	4,962	10.9
Injury and poisoning	4,940	10.8
Cancers	3,988	8.7
Disorders of genito-urinary system	3,204	7.0
Diseases of nervous system and sense organs	2,522	5.5
Mental disorders	2,471	5.4
All other diagnoses	10,043	22.0
Total	45,613	99.8+

* Source: Ministry of Health
+ Does not equal 100% due to rounding

Table 23: Major Hospital Discharge Diagnosis Categories in Females, 1981/82*

Diagnosis Categories	No. of Cases	%
Complications of pregnancy and childbirth (including abortions)	17,217	25.1
Diseases of genito-urinary system	6,641	9.7
Diseases of digestive system	5,833	8.5
Diseases of circulatory system	5,663	8.2
Neoplasms (cancer)	5,585	8.1
Diseases of respiratory system	4,025	5.9
Injury and poisoning	3,921	5.7
Diseases of musculoskeletal system	3,110	4.5
All other diagnoses	16,680	24.3
Total	68,675	100.0

* Source: Ministry of Health

Mortality Rates

Cause-, age-, and sex-specific rates can be calculated for any underlying cause of death coded in the Toronto Department of Public Health. Some of these rates are graphically presented in Figure 32.

The death pyramids in this figure allow a comparison of rates by age group and by sex. It can be seen that the mortality rate for all causes, lung cancer, myocardial infarction, and cirrhosis is greater in males than in females. In addition, the age at which mortality appears for specific causes, as well as the age groups with the highest rates, also can be examined. Of the specific causes of death pictured in Figure 32 cirrhosis is the only one whose rate does not increase with age.

Analysis of cause-specific mortality over time requires a comparison of rates which have been calculated using a standard population so that the age and sex distribution of each year of comparison will be comparable (4). This process is known as direct standardization, and the rates are called DSR's. The 1976 Census population for Ontario was used as the standard population.

Figures 33a and 33b examine DSR's from 1972 to 1982 for all causes, myocardial infarction, cancer of the larynx, trachea, bronchus, and lung, suicide, and motor vehicle accidents by sex.

It can be seen that the DSR in males has decreased substantially in the past eleven years for all causes and MI. Mortality from motor vehicle accidents also has decreased in males, and suicide has decreased slightly in females.

DSR's also were used to compare cause-specific mortality by sex between the six municipalities of Metropolitan Toronto. Data were obtained from the Ministry of Health, Data and Evaluation Branch. The most recent data available were for 1981.

According to these data for selected causes of death (Tables 28 and 29), the City of Toronto is a less healthy place to live compared to the other Metro municipalities. The DSR for all causes, lung cancer, cirrhosis,

Table 24: Major Categories of Diagnoses in Toronto Residents Contributing to Hospital Usage, 1981/82*

Diagnosis	Number of Hospital Days	% of Total Days	Average Duration of Stay per Separation
Circulatory system	195,634	16	15.5
Cancer	137,634	11	14.9
Mental disorders	127,521	10	23.0
Disorders of digestive system	115,742	9	9.4
Complications of pregnancy and childbirth	86,582	7	5.0
Injury and poisoning	78,344	6	8.8
Disorders of genito-urinary system	68,952	6	7.0
All others	439,047	35	-
Total for all diagnoses	1,249,456	100	10.9

* Source: Ministry of Health

Table 26: Major Discharge Diagnoses from Psychiatric Facilities*, City of Toronto Residents, 1981/82+

Diagnoses	Number of Separations	Mean Hospital Days
Personality disorders	1,914	31.7
Schizophrenia	1,854	125.8
Neuroses	1,321	27.1
Other psychoses	998	85.7
Affective psychoses	964	48.1
Alcoholism	250	34.9
All other diagnoses	195	125.1
All separations	7,496	65.9

* Psychiatric units, community psychiatric facilities, Ontario psychiatric hospitals, and miscellaneous psychiatric facilities

+ Source: Ministry of Health

Table 25: Most Common Discharge Diagnoses for Separations from Psychiatric Facilities* by Age Group, 1981/82+

	0-14	15-44	45-64	65+
1.	Personality disorders (17)	Schizophrenia (1,452)	Schizophrenia (344)	Other psychoses (234)
2.	Other psychoses (8)	Personality disorders (1,434)	Neuroses (339)	Neuroses (159)
3.		Neuroses (821)	Affective psychoses (326)	Affective psychoses (156)
4.		Affective psychoses (482)	Personality disorders (324)	Personality disorders (139)
5.			Alcoholism (103)	Schizophrenia (57)
Total separations	28	4,992	1,694	782
Mean days in hospital	12.9	35.4	98.9	191.8

* Psychiatric units, community psychiatric facilities, Ontario psychiatric hospitals, and miscellaneous psychiatric facilities

+ Source: Ministry of Health

Table 27: Infant Deaths and Rates* by Age Group, 1950-1982

Year	No. Live Births	1 Day		1-6 Days		7-28 Days		28 Days-12 Months		Total 1 Year	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
1950	13,156	103	7.8	127	9.7	40	3.0	109	8.3	379	28.8
1955	15,082	128	8.5	119	7.9	36	2.4	96	6.4	379	25.1
1960	15,787	153	9.7	87	5.5	23	1.5	88	5.6	351	22.2
1965	14,086	130	9.2	65	4.6	17	1.2	77	5.5	289	20.5
1970	13,601	65	4.8	68	5.0	23	1.7	56	4.1	212	15.6
1973	10,866	61	5.6	39	3.6	14	1.3	40	3.7	154	14.2
1974	10,269	44	4.3	32	3.1	12	1.2	37	3.6	125	12.2
1975	10,053	44	4.4	36	3.6	12	1.2	35	3.5	127	12.6
1976	9,436	43	4.6	23	2.4	8	0.8	35	3.7	109	11.6
1977	8,958	33	3.7	32	3.6	6	0.7	19	2.1	90	10.0
1978	8,230	37	4.5	22	2.7	11	1.3	21	2.6	91	11.1
1979	7,906	26	3.3	26	3.3	15	1.9	20	2.5	87	11.0
1980	8,103	24	3.0	19	2.3	8	1.0	32	3.9	83	10.2
1981	7,597	25	3.3	11	1.4	4	0.5	24	3.2	64	8.4
1982	8,033	18	2.2	18	2.2	7	0.9	18	2.2	61	7.6

* Per 1,000 live births

Table 28: Directly Standardized Death Rates* in Males, City of Toronto and other Metropolitan Boroughs and Cities, 1981

Cause of Death	City of Toronto	Borough of Etobicoke	Borough of York	City of North York	Borough of East York	City of Scarborough
All causes	824.5	656.9	675.3	619.8	699.3	693.0
Lung cancer	66.8	43.0	57.0	46.0	57.1	61.1
Myocardial infarction	121.9	166.3	118.1	132.1	124.8	109.7
Other Ischaemic heart disease	94.8	57.2	69.8	63.6	82.1	105.7
Cirrhosis	24.2	12.3	20.5	8.7	11.0	12.0
Motor vehicle accident	12.7	9.3	12.8	12.3	8.7	10.3
Suicide	23.1	10.1	18.1	11.4	12.2	13.7

* Per 100,000 population

and suicide was highest for City of Toronto males. City of Toronto females fared somewhat better. They had the highest rate for suicide, but the second highest for lung cancer, cirrhosis, and motor vehicle accidents. According to these data, no one municipality stands out as the healthiest, although the Borough of Etobicoke had the lowest DSR for lung cancer, ischaemic heart disease, and suicide in males, and the Borough of York had the lowest rates for all causes, breast cancer, lung cancer, and ischaemic heart disease in females.

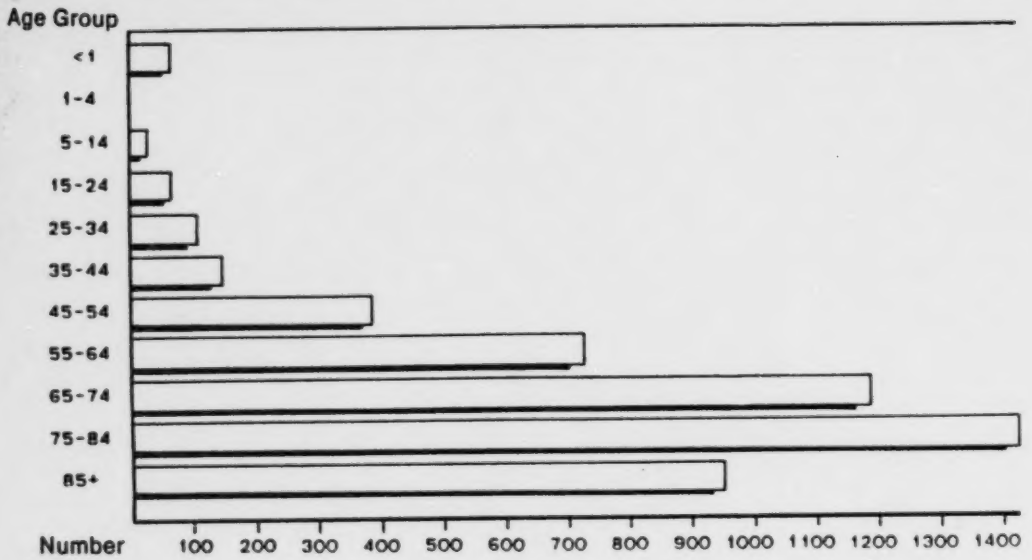
While these DSR's are cause for concern to the Department of Public Health and City of Toronto residents, there may also be a major concern about the coding of residence. These data were coded by the Registrar General's Office at Queen's Park, and although a spot check is made on the address supplied on the death certificate, some addresses from the other Metro municipalities have been mistakenly attributed to the City of Toronto. This over-assignment to the City of Toronto is likely one of the causes of its high DSR's, however, other potential causes will be investigated.

As in past years, standardized mortality ratios (SMR's) were calculated for selected causes of death by sex. The number of observed deaths in 1982 among City of Toronto residents were compared to the number of expected deaths (based on 1981 provincial rates), to arrive at a ratio known as the SMR(2). Figure 34 examines these SMR's for all ages. Table 30 compares the same causes of death to the province by sex, but within selected age groups.

According to Figure 34, the rates of cirrhosis and suicide were higher in Toronto males compared to the Province, and the rate of suicide in Toronto females was almost two times that of the province.

More problems were uncovered, however, within the age groups examined. For example, males had higher rates for all causes of death combined in the 0-14 year old age group. In 15-44 year old males the leukemia rate was three times that of the province, and suicide rates in

Figure 28: Mortality by Age Group in the City of Toronto, 1982



Number	Percent
57	1.14
8	0.16
10	0.20
56	1.12
107	2.14
135	2.70
375	7.51
720	14.41
1173	23.48
1416	28.34
939	18.80

both males and females were higher in Toronto compared to the province in the 45-64 year old age group. Males in that age group also had higher rates for all causes combined. Finally, in the 65+ age group, cirrhosis was twice as high in Toronto males compared to the province, and lung cancer in females also was higher than the province as a whole.

Other Epidemiologic Indicators - Time and Place

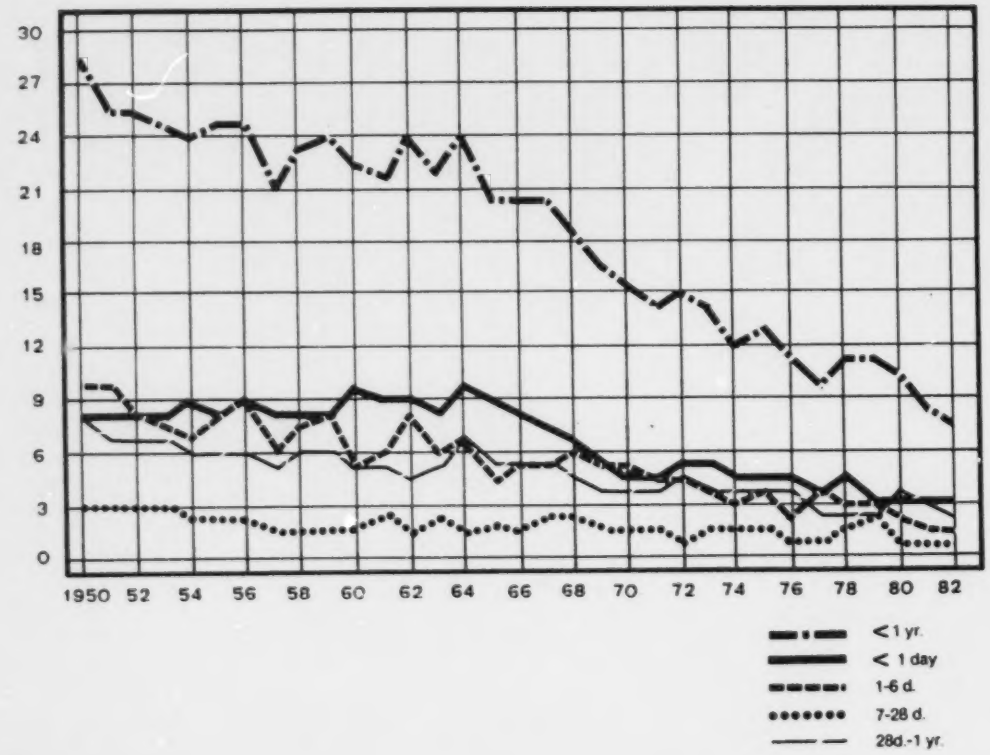
Epidemiology is defined as the study of the distribution and cause of disease (4). In order to study the epidemiology of any disease, it is crucial that both time and place be considered. These factors are developed in the following analyses. Seasonality (time) was examined for each of the major groupings of the ICD-9 categories. In addition, the spatial distribution of disease was analyzed for all causes of death combined and selected categories.

Table 29: Directly Standardized Death Rates* in Females, City of Toronto and Other Metropolitan Boroughs and Cities, 1981

Cause of Death	City of Toronto	Borough of Etobicoke	Borough of York	City of North York	Borough of East York	City of Scarborough
All causes	559.0	573.4	502.0	518.4	525.0	627.1
Breast cancer	26.7	37.3	24.1	25.5	39.0	32.4
Lung cancer	20.5	21.3	10.3	17.1	25.9	17.2
Myocardial infarction	63.5	85.3	73.8	79.6	69.8	61.6
Other Ischaemic heart disease	71.3	71.5	64.6	70.0	70.9	114.3
Cirrhosis	7.8	5.5	6.1	5.2	6.2	9.3
Motor vehicle accident	7.2	5.3	4.5	3.7	1.3	10.3
Suicide	9.4	6.5	4.9	8.0	6.4	7.4

* Per 100,000 population

Figure 29: Infant Mortality Rates* by Age Group, 1950 - 1982



* Per 1,000 live births

1. Seasonality

Using the SAS X-11 procedure for analyzing seasonalities in time series data (5) each major grouping of the 9th revision of the International Classification of Diseases was analyzed for the period 1979-1982 combined. This procedure examines the *predicted seasonal component* for 1983, based on the 1979-1982 mortality experience of the City.

In some of the disease classification groups, numbers were too small for analysis. However, a significant seasonal component ($p \leq .01$) was found for all causes combined, mental disorders, diseases of the circulatory system, respiratory disease, diseases of the digestive system, and symptoms, signs, and ill-defined conditions. As Figure 35a and 35b indicate, there is a high seasonal component for all deaths in December and January. This December and January influence is the main feature for all other causes examined, with the exception of mortality from mental disorders. This group of diseases exhibits an extremely strong seasonal component for the month of October. This October high is consistent for all four years of analysis.

2. Spatial Distribution of Mortality

Another method of analyzing mortality data is to look at its spatial distribution throughout the City. From this it may be possible to note underlying causes of mortality in the City - be they socioeconomic, environmental or other. However, in order to compare equivalent measures of mortality, it is important to adjust the mortality experience of each census tract to a standard population.

For this analysis we have taken the age and sex profiles of the 142 census tracts of the City (excluding census tracts 3, 8, 12, 14 and 20 because of small populations), calculated age-, and sex-specific mortality rates, and applied them to the 1981 census population of the City. This gives a directly standardized rate (DSR) for each census tract. Data are analyzed for 1979-1982 combined.

In the spatial analysis of data, two questions have been asked:

a. Do certain census tracts have abnormally high DSR's (i.e., outliers)?
b. Do these outliers exhibit some general spatial characteristic (i.e., clustering, or common socioeconomic or environmental conditions)?

According to Figure 36 showing the spatial distribution of all causes of death combined, four outliers in the top quarter of the range of DSR's were identified. All four of these are in the centre of the City, and three are in the city core (census tracts 35, 64, and 89). Looking at the distributions of the top decile (i.e. census tracts 89, 35, 64, 116, 16, 19, 11, 18, 34, 5, 32, 66, 33, and 29), there appears to be a preponderance of high DSR's in the southern

Table 30: Statistically Significant Standardized Mortality Ratios (SMR)* for Major Causes of Death for Males and Females, Broken Down by Age Group

Males

Causes of Death	0-14	15-44	45-64	65
All causes	1.43+		1.19++	0.70++
Leukemia		3.18**		
Colon cancer				0.62**
Lung cancer				0.78**
Ischaemic heart disease				0.56++
Myocardial infarction				0.56++
Cirrhosis				2.02++
Motor vehicle accident		0.19++		
Suicide		1.62++	2.11++	

Females

Causes of Death	0-14	15-44	45-64	65
All causes				0.75++
Leukemia				
Breast cancer				
Colon cancer				
Lung cancer				1.38+
Ischaemic heart disease				0.60++
Myocardial infarction				0.64++
Cirrhosis				
Motor vehicle accident				
Suicide		1.80+	1.88+	

* City of Toronto (1982 rates) compared with Province of Ontario (1981 rates)

\+ $p<0.05$

** $p<0.01$

\+\+ $p<.001$

and central parts of the City.

Neoplasms (ICD-9: 140-239) (Figure 37) and digestive diseases (ICD-9: 520-579) (Figure 38) also were examined spatially. For neoplasms, the outliers in the top quarter of the range of DSR's again are in the downtown core of the City. This is also the case for digestive diseases.

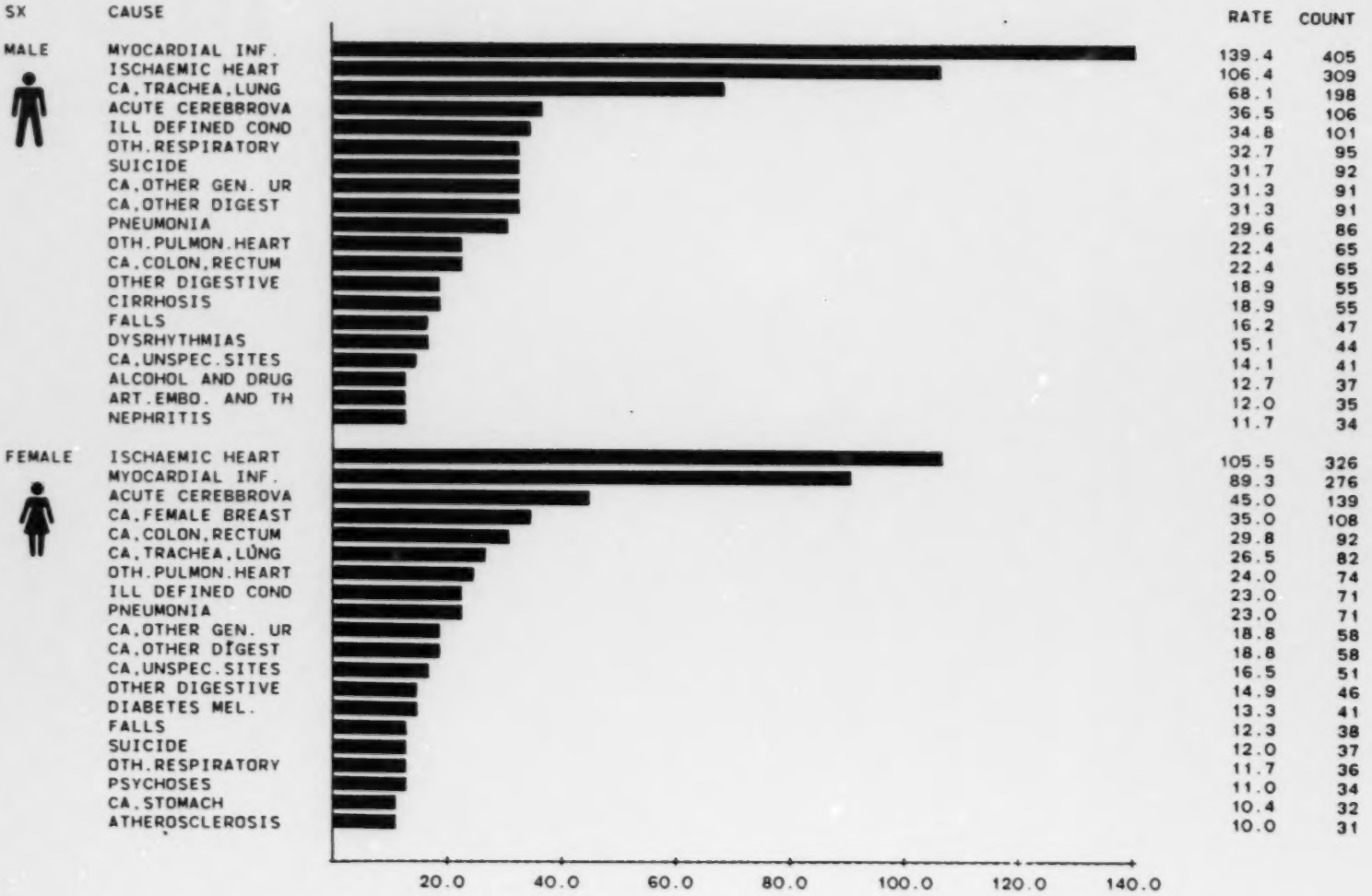
Mortality by Health Area

Mortality in the City of Toronto also can be examined by Health Area. Table 31 is a summary of some of the important mortality indicators in 1982.

According to this table, the highest general death rate was in the Downtown Health Area. The Downtown Health Area also had the highest standardized rate for all causes of death combined, myocardial infarction, other ischaemic heart disease, cirrhosis, and suicide. The Northern Health Area had the lowest rates for several causes of death although it had the highest rate of breast cancer compared to the other Health Areas and the City as a whole.

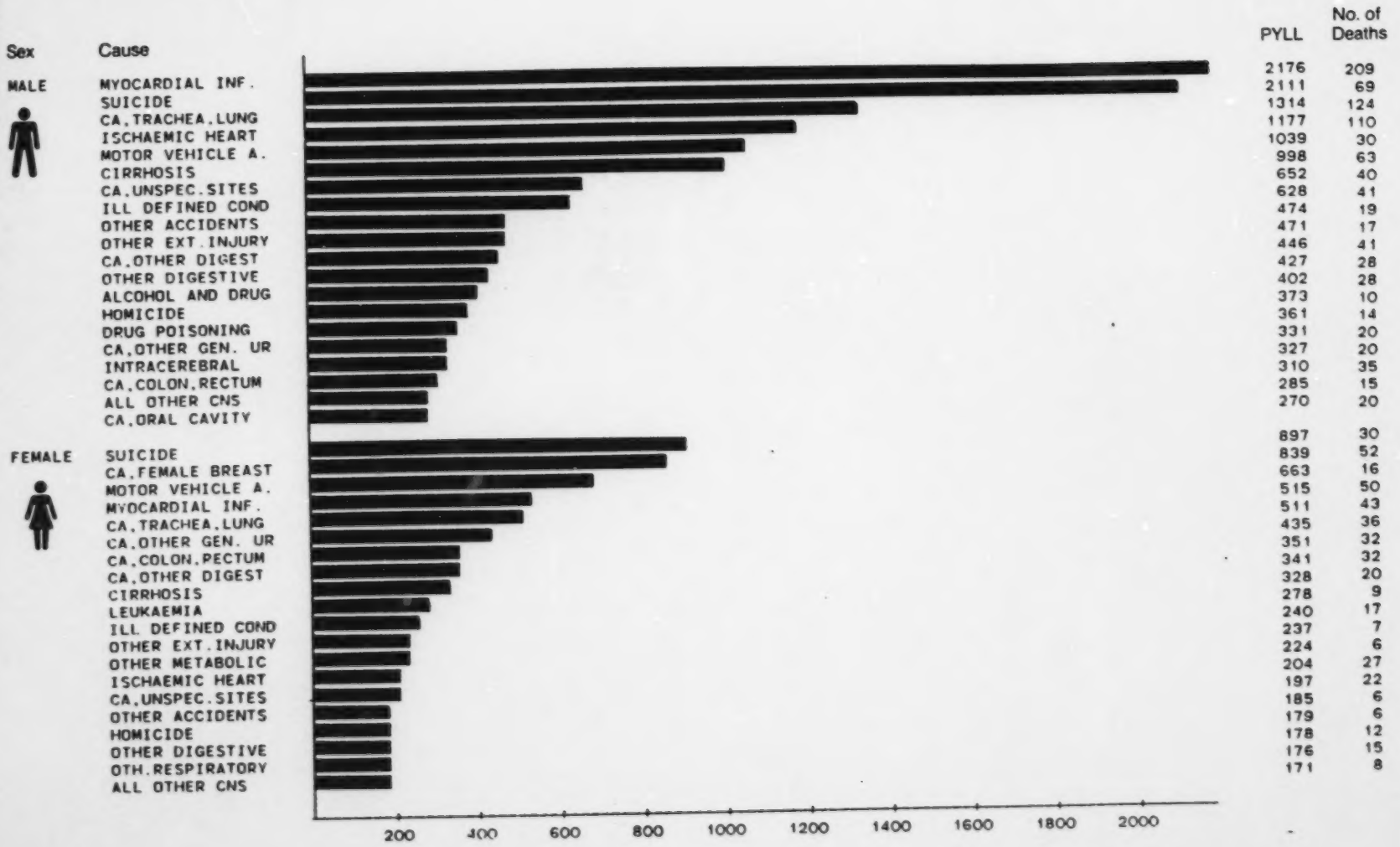
The Downtown Health Area had the lowest mean age at death, while the Northern Health Area had the highest. Detailed analyses of mortality by Health Area have been published previously.

Figure 30: Major Causes of Death (Frequency and Rate*) by Sex in City of Toronto Residents, 1982



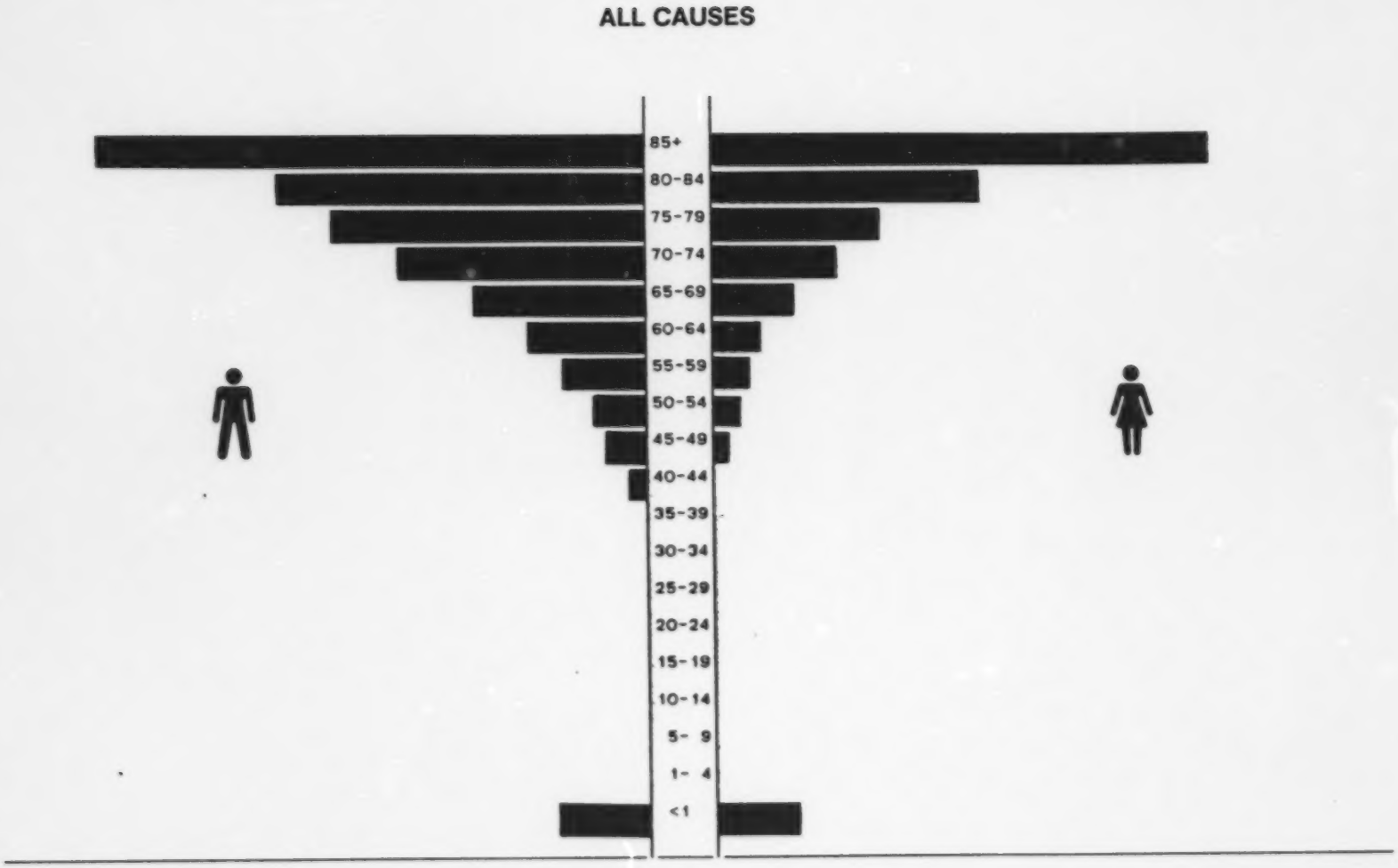
*Per 100,000 population

Figure 31: Major Causes of Potential Years of Life Lost (PYLL)* by Sex Among City of Toronto Residents, 1982

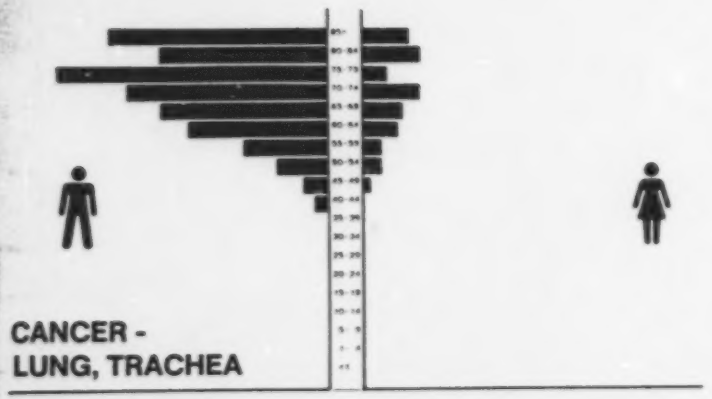


*Between the ages of 1 and 70

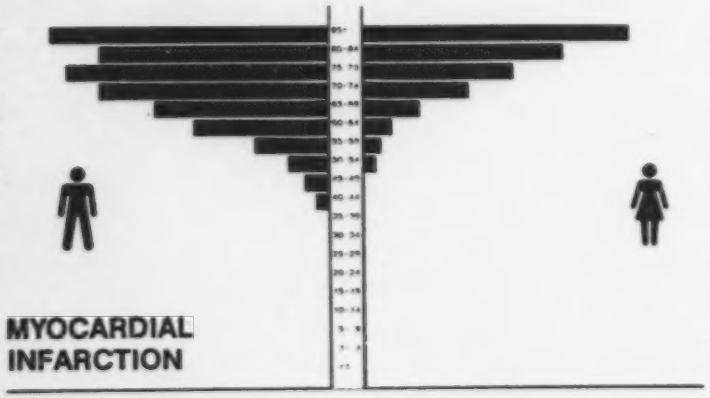
Figure 32: City of Toronto Mortality Rates* for Selected Causes of Death by Age, Group and Sex, 1982



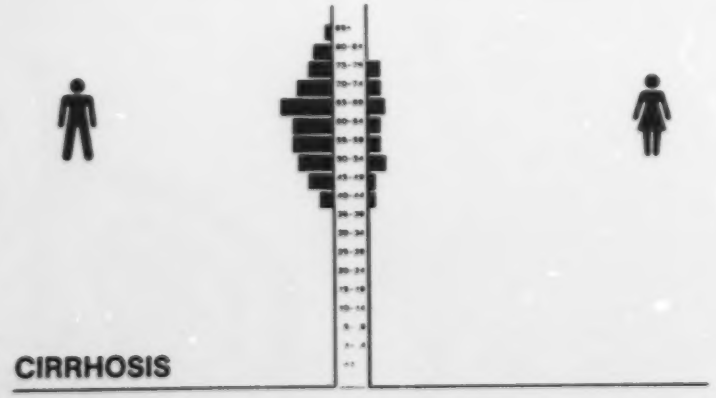
*Per 100,000 population



CANCER - LUNG, TRACHEA



MYOCARDIAL INFARCTION



CIRRHOSIS

Table 31: Summary Mortality Indicators by Health Area, 1982

	WHA	NHA	DHA	EHA	City
Number of deaths	1,300	1,705	913	1,081	5,000*
General death rate+	8.1	7.8	9.9	8.9	8.4
Males	9.5	8.4	11.2	9.8	9.4
Females	6.7	7.3	8.5	8.0	7.5
Standardized death rate**					
all causes	57.9	47.8	78.5	61.7	57.8
breast cancer	1.2	1.9	1.0	1.2	1.4
lung cancer	3.3	2.5	4.7	4.8	3.5
colon cancer	1.8	1.9	1.7	1.5	1.8
myocardial infarction	8.9	6.1	10.5	7.6	7.8
other ischaemic heart disease	5.8	5.3	8.8	7.6	6.4
cirrhosis	1.6	0.5	2.4	1.0	1.2
motor vehicle accidents	0.7	0.3	0.4	0.4	0.4
suicide	2.2	1.5	2.9	1.6	1.9
Potential years of life lost	7,923	7,725	6,431	6,420	28,541
Males	5,358	4,935	4,481	4,517	19,333
Females	2,565	2,790	1,950	1,903	9,208
Mean age at death	68.9	72.9	67.7	69.2	70.1
Males	66.5	69.6	64.7	65.5	66.8
Females	72.6	76.2	72.0	73.5	74.1

* Address missing for 1 case

\+ Per 1,000 population

** Standardized to the Ontario 1976 census population, per 10,000 population

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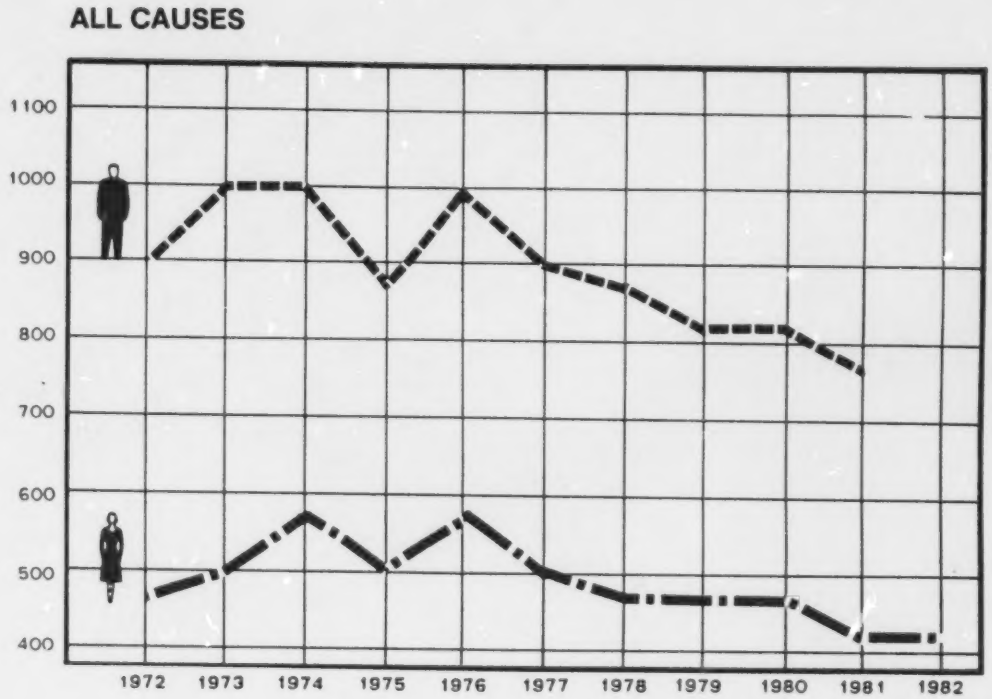
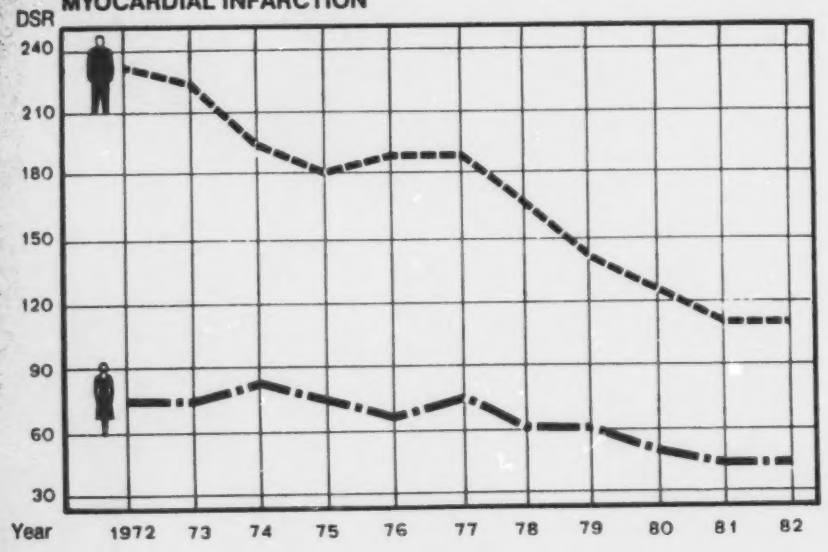
Figure 33: Directly Standardized Death Rates (DSR's)* by Sex for the City of Toronto 1972-1982

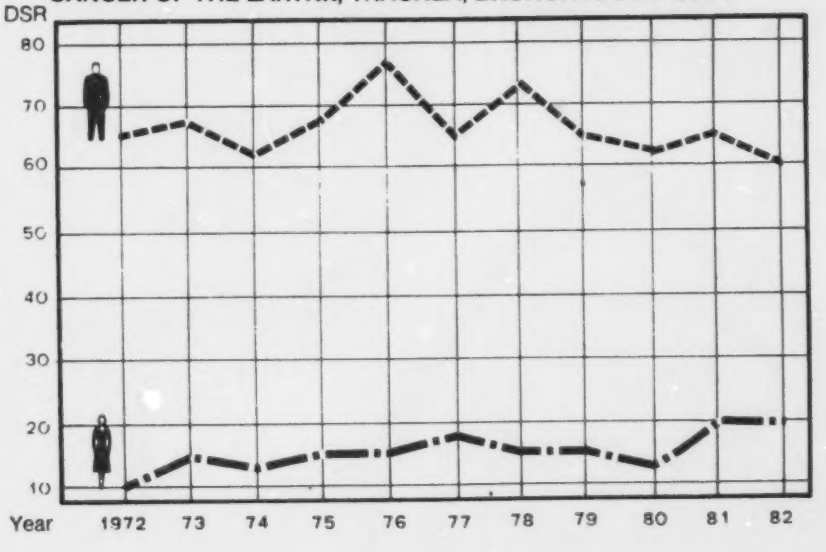


Per 100,000 population

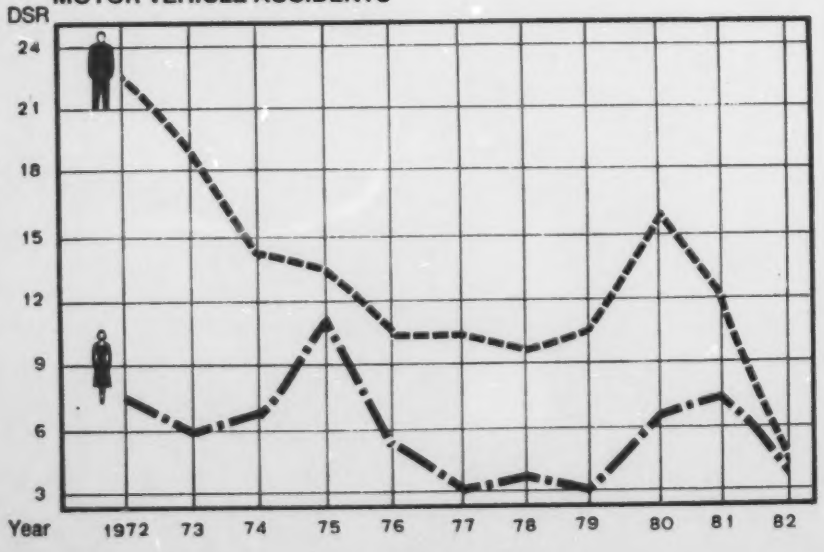
MYOCARDIAL INFARCTION



CANCER OF THE LARYNX, TRACHEA, BRONCHUS AND LUNG



MOTOR VEHICLE ACCIDENTS



SUICIDE

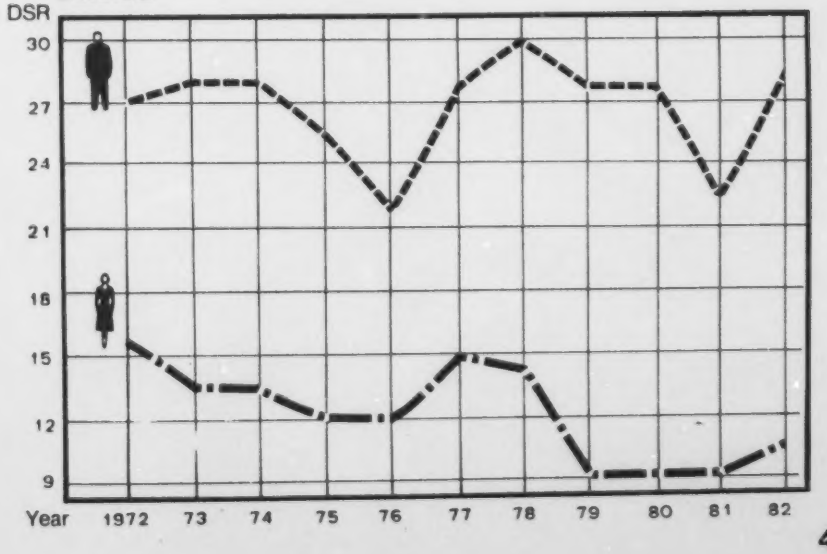
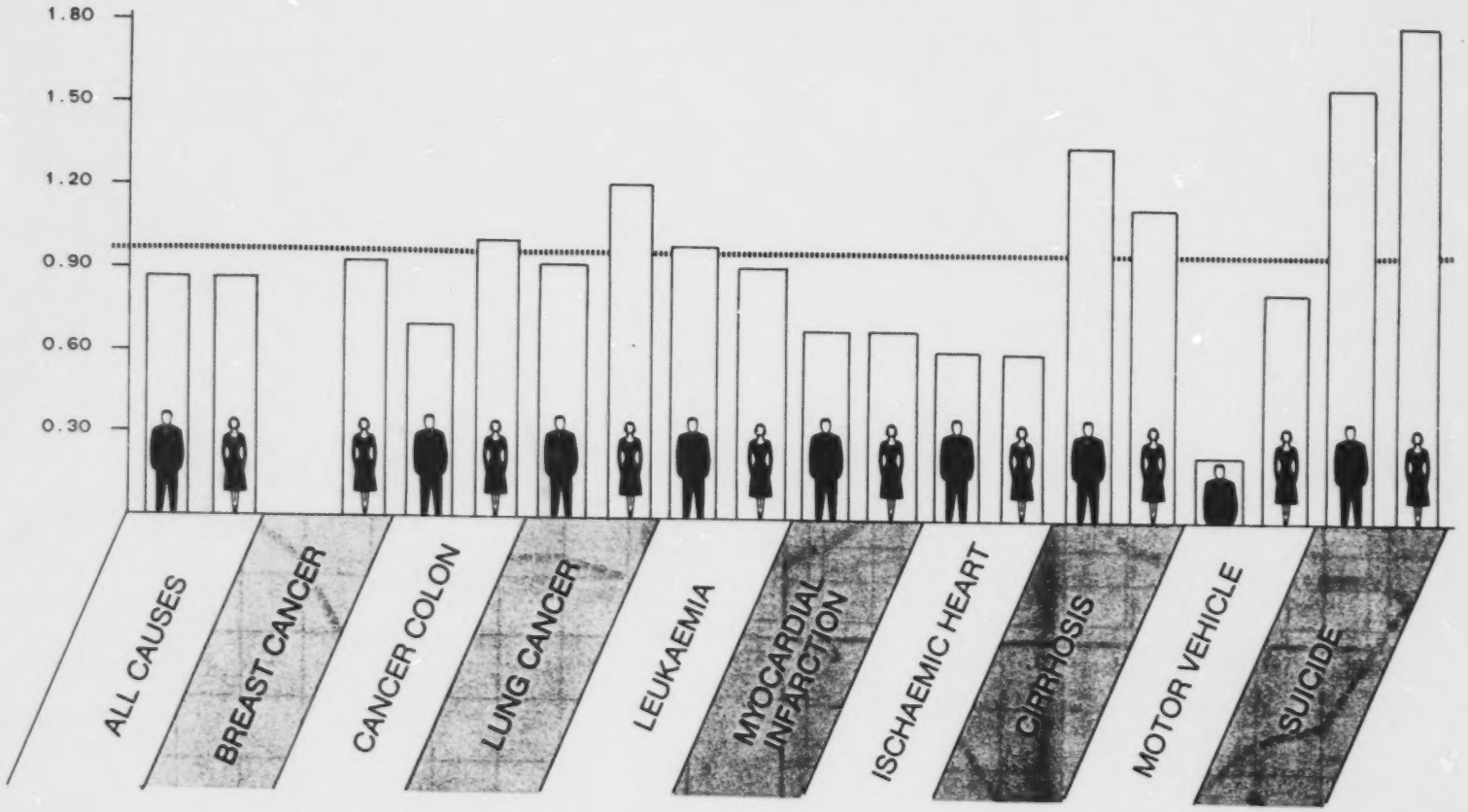
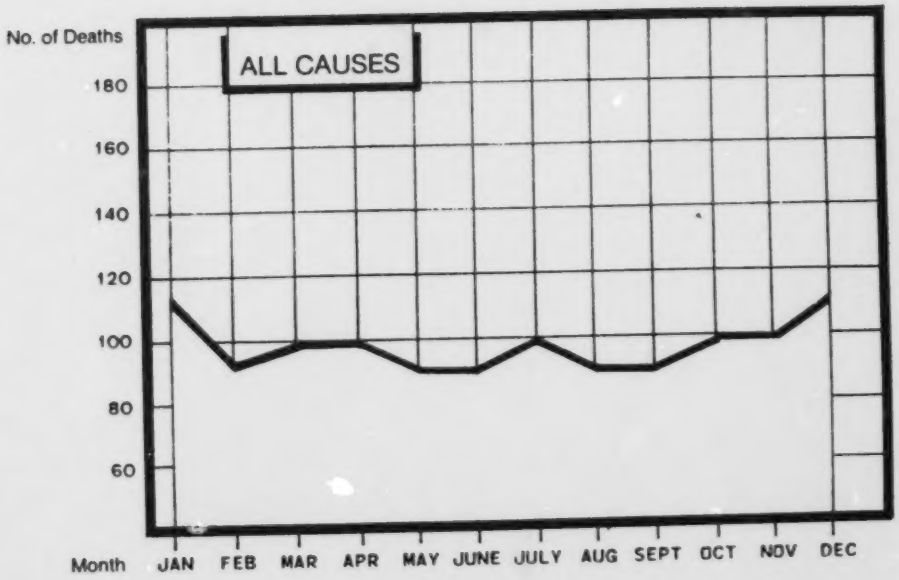


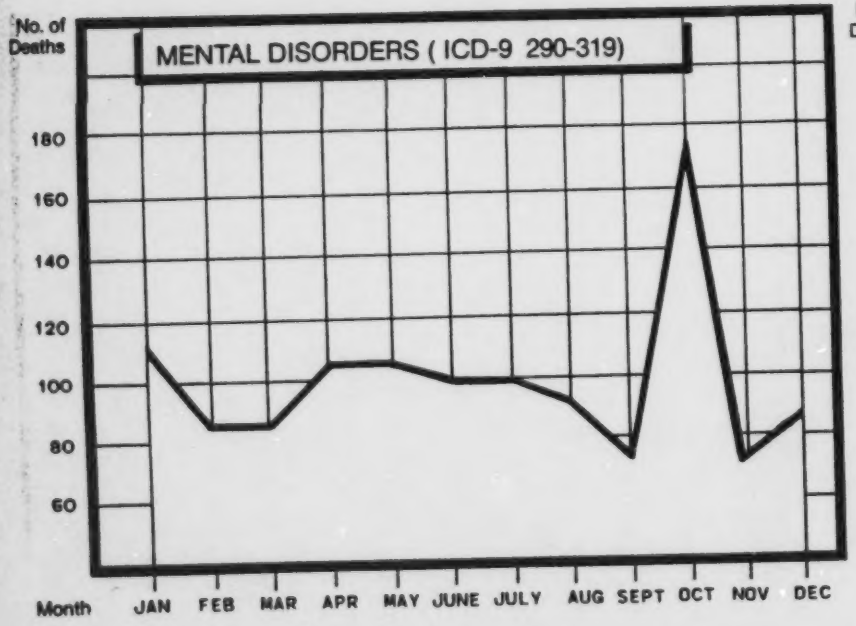
Figure 34: Standardized Mortality Ratios (SMR)* for Major Causes of Death in Males and Females, 1981



* City of Toronto (1982 rates) compared with Province of Ontario (1981 rates)

Figure 35a: Seasonal Factors for Selected Causes of Death, Predicted One Year Ahead, Based on 1979-1982 Dx Combined





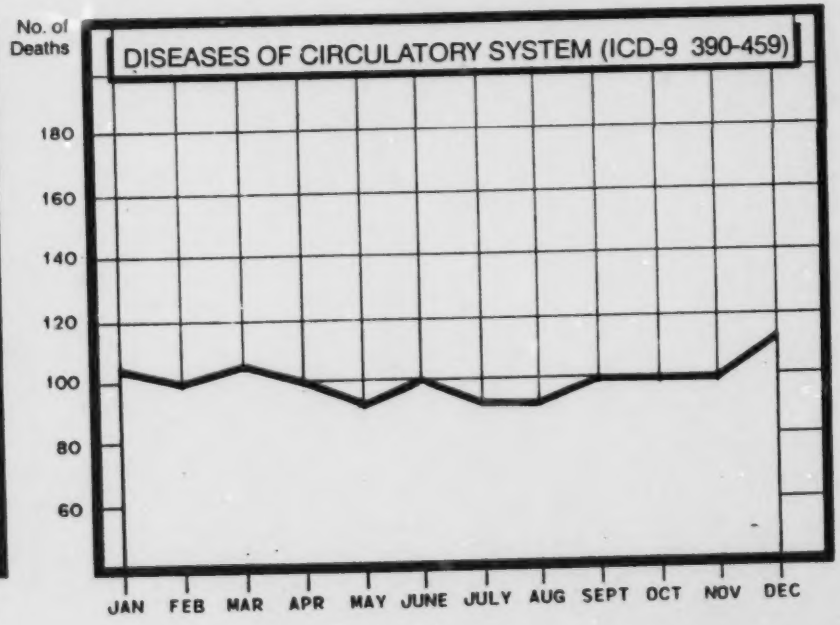
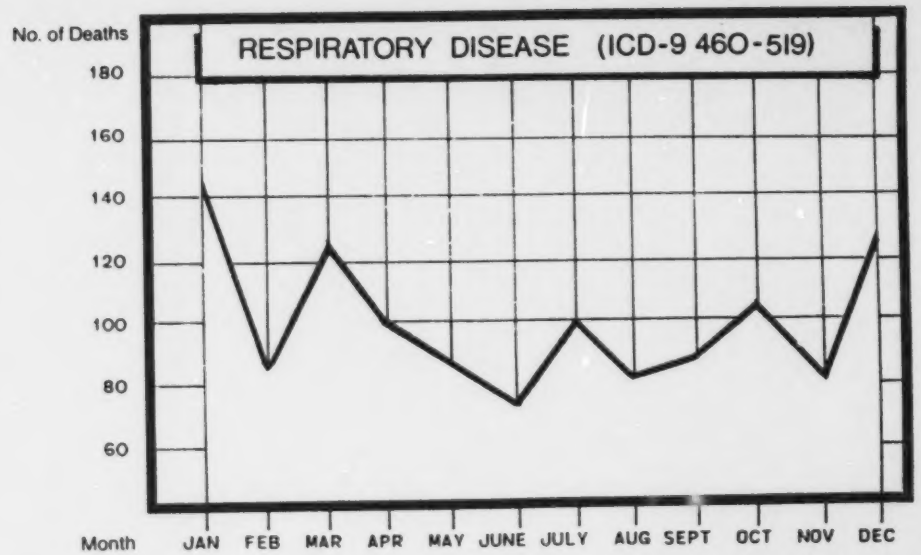
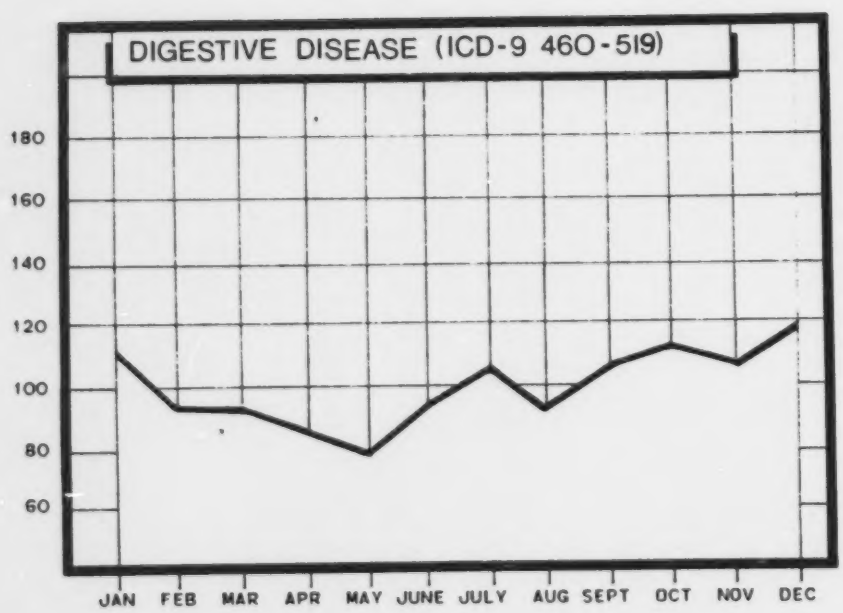


Figure 35b: Seasonal Factors for Selected Causes of Death, Predicted One Year Ahead, Based on 1979-1982 Dx Combined





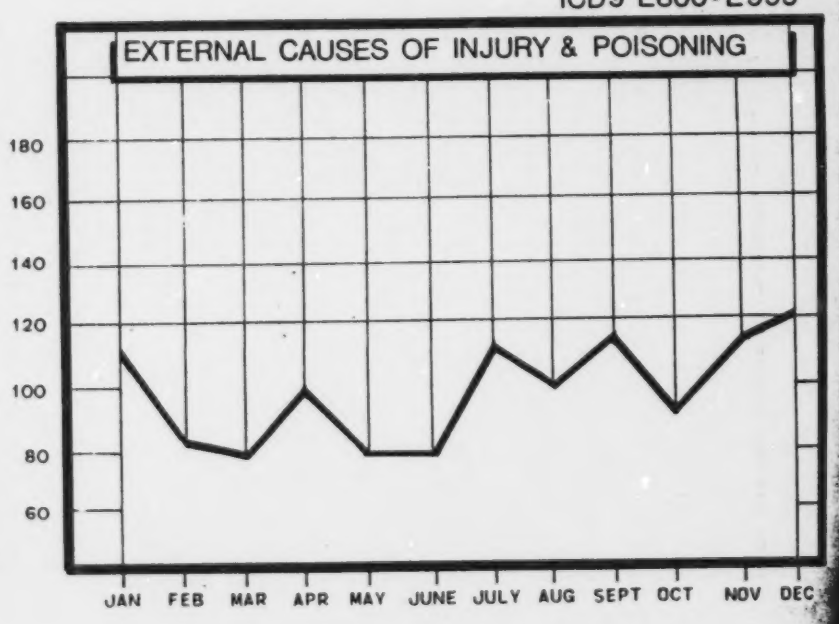
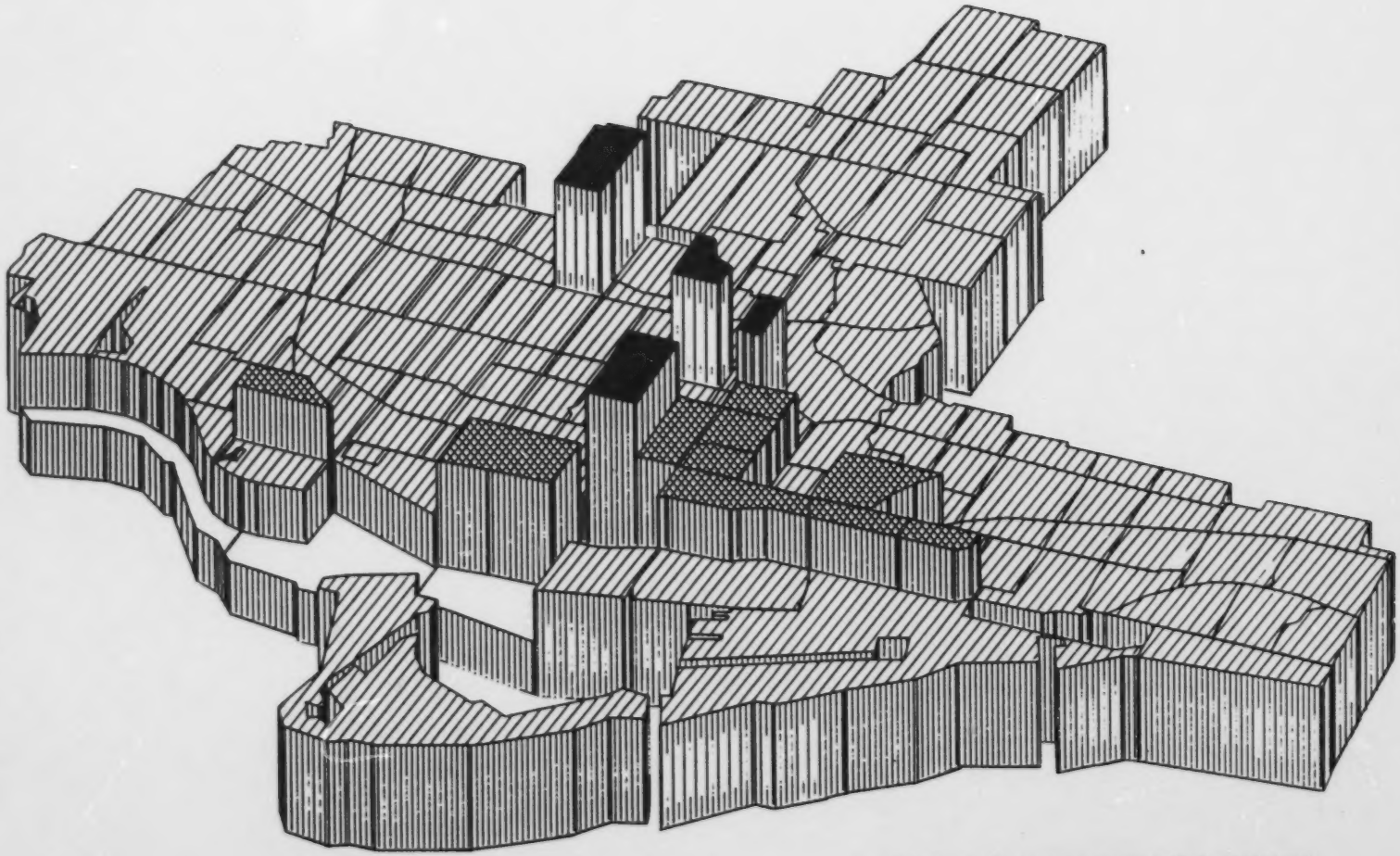
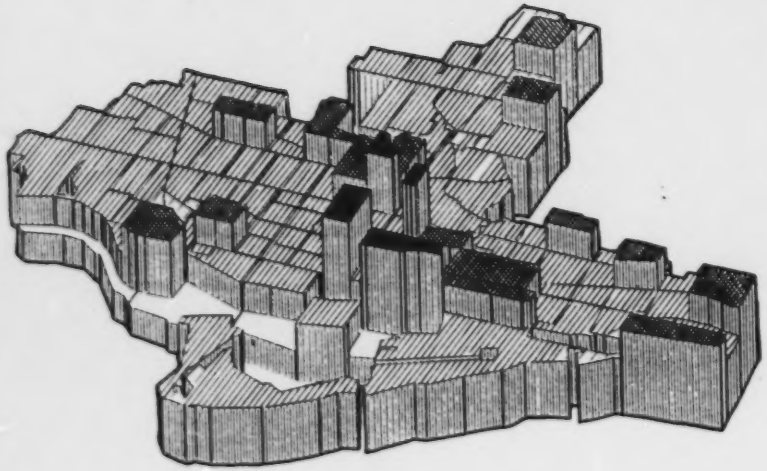


Figure 36: **Census Tracts in the City of Toronto with the Highest * DSR's for All Causes of Death, 1979-1982 Combined**



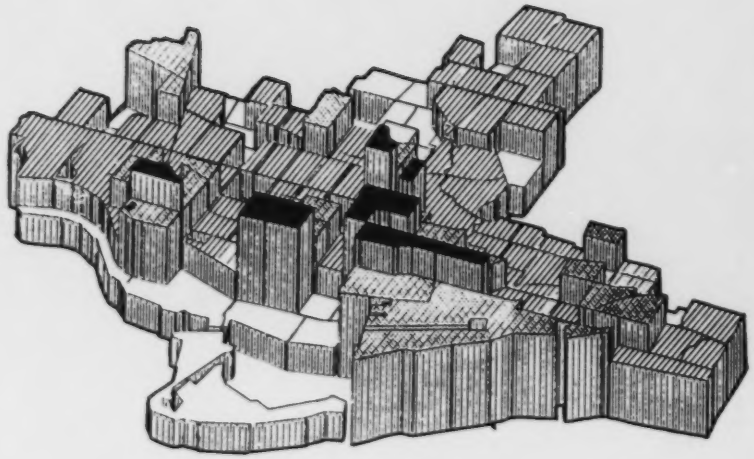
* solid shading for census tracts with the 4 highest (extreme) DSR's, crosshatching for 2nd highest level.

Figure 37: Census Tracts in the City of Toronto with the Highest *DSR's for Neoplasms, 1979 - 1982 Combined



* solid shading for census tracts with the 8 highest (extreme) DSR's crosshatching for 2nd highest level.

Figure 38: Census Tracts in the City of Toronto with the Highest* DSR's for Digestive Disease, 1979 - 1982 Combined



* Dark shading for census tracts with the 4 highest (extreme) DSR's, crosshatching for 2nd highest level.

Health Programmes in the Department of Public Health

Introduction

This section of the Annual Statement highlights a number of the programmes that the Department of Public Health has undertaken over the past year. While both the analysis of health status data and restructuring of the organization are important for the planning, and functioning of the Department, the real health impact of the Department on the public is felt through services provided.

The health status section of this report reveals a number of important implications for delivery of health services in the City of Toronto. Both sociodemographic and health status indicators vary widely among different Health Areas and even within specific parts of the City. For example, various ethnic and socioeconomic groups cluster in different areas of the City, as can be seen in the maps on pages 7-11. At the same time, mortality and morbidity factors also show specific patterns by location of residents. Such composite information can provide a useful basis for staff in planning programmes by identifying high risk groups and suggesting strategies for reaching them. The description of programmes in this section gives a number of examples of how such planning has been put into operation. For instance, at least two of the Health Areas are initiating smoking prevention and stress management programmes in line with an overall goal of reducing premature deaths from cancer of the lung and heart disease.

Nonetheless, statistical data provide only one part of the picture for programme planning; the health issues and concerns identified by community members must also be addressed. "Lead Week" in the Eastern Health Area and a major study of pollution in the Junction Triangle in the Western Health Area are two examples of projects developed with community input. The formation, by the end of 1982, of Community Advisory Boards (comprised of eight community members) in each of the Health Areas was a major step in formalizing the Department's links to the community, as was the addition of eight Community Health Officers to the Department. Periodic surveys as well as community participation in meetings, forums and workshops also helped shape future services.

Although the programme highlights in this section identify some of the new and significant activities provided over the past year, the Department offers many other ongoing services. Further details on any Department activities can be obtained from the Area offices shown on the map (Introduction).

The following section has three parts. The first is a description of each of the four Health Areas formed under the reorganization and includes a brief demographic and health status overview along with programme highlights. The second part outlines the roles of the Central Resources staff in consultation, support and organization for City-wide programmes. The third part turns to City-wide programmes that are offered across all four Health Areas and are usually coordinated centrally.

Northern Health Area

The Northern Health Area (NHA), contains 37% of the City's population. Given that health is a state of optimal physical, mental, social and ecological well-being, and that health status is determined not merely by biological factors but by a wide variety of social and environmental factors, the staff of the NHA will become involved in issues affected by personal behaviour, the family system, the psychosocial and physical environments, community values and attitudes, economic and political influences and philosophical and cultural beliefs. This means that the NHA plans to become a part of the community, and work with the community in pursuit of health and health-related goals. Reflections of this commitment to community involvement is shown by the adoption of a community development strategy to guide and support staff in working with the community and Community Advisory Board and to involve them in activities.

Health Status

This and the following section are based upon the *Northern Health Area Programme Priorities Report* (January, 1983), upon a preliminary health status report and upon subsequent data prepared by the Community Health Information Team from Central Resources. The data are all for 1981.

The NHA can be divided into two fairly distinct areas: east of Bathurst Street is North Toronto, consisting of Wards 10 and 11 and part of Ward 5; west of Bathurst Street is Hillcrest, comprising Ward 3 and part of Ward 5.

Table 32 shows comparable population and natality data for North Toronto, Hillcrest, the Northern Health Area and the City of Toronto in 1981. Regarding deaths, preliminary analysis indicates that the only obvious major difference between North Toronto and Hillcrest is a higher proportion of suicides and breast cancer in women and a larger proportion of stomach cancer in both sexes in North Toronto. More detailed analysis to be conducted in 1983 will clarify these data.

In the Northern Health Area as a whole, the major causes of death differ little from those in the City, namely cardiovascular and cerebrovascular disease, cancer of the lung, colon and breast, pneumonia and falls, while the leading causes of potential years of life lost (PYLL) were suicide, heart attack, motor vehicle accidents, cancer of the lung and cancer of the breast.

Although the main causes of death and potential years of life lost were the same, the NHA fared better than the City in that the standardized mortality rates (SMR's) for all major causes of death were lower for the NHA compared with the City as a whole. Compared with Ontario, the SMR's for the Northern Health Area were significantly lower in males for all causes (0.72), myocardial infarct (0.60), and motor vehicle accidents (0.38), and in females for all causes (0.68), and myocardial infarct (0.56).

Programme Priorities

During the first six months of existence, the Northern Health Area reviewed health status data and expert opinion on health problems, and conducted a survey of all staff and over 100

community leaders in an attempt to determine community opinions on health problems. As a result of this, the NHA has identified priority prevention programmes for the rest of the decade. The next two to three years will be focused on four prevention priorities - smoking, stress and suicide, injury control and occupational health - and to this end, four prevention work groups have been established to develop programmes in these areas. In addition, the NHA has identified three community support priorities - the elderly, ethnic communities, and ex-psychiatric patients - and the community development strategy will be geared towards these priorities.

Items of Note

While 1982 has been primarily a half-year of reorganization and planning, it has also been eventful. An outbreak of whooping cough in several day care centres led to the rapid development of a policy for the control of such outbreaks. Arising out of that experience, a start was made on the reorganization of communicable disease control to make it more effective. This has included the development of a comprehensive policy and procedures manual. Additional Communicable Disease Control measures will continue to be explored in 1983.

Another communicable disease problem that arose in 1982 and continues to be a problem into 1983 was the evidence of widespread rabies among skunks in the Eglinton/Lawrence/Yonge area. In response, a trapping programme and a school education programme was initiated, and public warnings were issued.

Other public activities included the distribution of an information pamphlet on the Northern Health Area to every household in the Area, and the presentation of two displays in two local shopping malls - one on "Our Chemical Society" and one, near Christmas, on Accident Prevention. In addition, we have been re-examining a number of our routine activities, such as school health programmes, inspection procedures, hearing and vision screening and general administrative procedures to find ways of streamlining our activities to make way for the new priorities we have established.

Western Health Area

Health Status

In 1982, as an initial step in the development of a portrait of the health needs of the Western Health Area (WHA), a health status report was prepared. This report was derived from an analysis of the 1981 Area-specific data package prepared by Central Resources. Data on population, births, fertility, prematurity and mortality were compiled and examined. However, the completeness of the health status data for the Area was limited by the unavailability of Area-specific morbidity data.

The Western Health Area has a population

Table 32: Selected Comparative Demographic and Health Status Data, Hillcrest, North Toronto, Total Northern Health Area and City of Toronto, 1981.

		Hillcrest	North Toronto	Total NHA	City
Population		75,286	143,389	218,675	599,511
0-4	#	3,621	3,896	7,517	31,470
	%	4.8%	2.7%	3.4%	5.2%
5-19	#	19,578	19,354	38,932	108,230
	%	26.1%	13.5%	17.8%	18.1%
65+	#	8,409	25,367	33,776	74,775
	%	11.2%	17.7%	15.5%	12.5%
General fertility rate per 1,000 women 15-49		47.5	26.2	36.3	45.8
Percent births to women age 15-19		8.1%	2.1%	4.9%	7.7%
Age 30-34		20.5%	43.4%	32.6%	27.7%
Low birth weight ratio (2,500 gm)		6.9%	4.9%	5.8%	6.1%
Infant mortality rate per 1,000 live births		8.3	11.5	10.0	8.4

of 160,758 (or 27.1% of the City total), located within approximately one-third of the City's census tracts. Of the four Health Areas, the Western has the highest proportion of children under six years of age, (as compared with the total Area population). While the WHA has a lower proportion of the elderly than the City as a whole, this group is concentrated in one pocket of the Area. Of equal significance are the ethnic composition and education status of Area residents. As a whole, the Area is highly ethnic; it contains approximately one-half of the City's census tracts with the highest proportion of the population (greater than 51%), whose mother tongue is other than English. Also, the Area contains about 40% of the census tracts in which more than 45% of the population have less than a grade 8 education.

A review of the health data showed that, in general, the age specific fertility rates for the WHA were consistently higher than the City's. While the proportion of premature (less than 2500 grams) infants born (5.5% of the total number of live births) was similar to that for the City, it was noted that, again, these appeared to be clustered in a pocket of five census tracts in the Area. Mortality data showed that the five leading causes of death in the population over one year of age included 1) all cancers, 2) myocardial infarction, 3) ischaemic heart disease, 4) lung cancer and 5) acute cerebrovascular disease. Other significant causes of death included suicide, cirrhosis, and motor vehicle accidents. For infants (less than one year old), the majority of deaths occurred in the first week of life and the causes of death were varied. More detailed age and sex-specific data were also obtained - both in terms of standardized mortality ratios and potential years of life lost.

The Cardiopulmonary Resuscitation Programme
The Cardiopulmonary Resuscitation (CPR) Programme is intended to train people in the art of recognizing the signals of heart distress and techniques for dealing with someone undergoing cardiac arrest. The aim is to develop a cadre of people in the community capable of reviving a heart attack victim until more sophisticated medical intervention is available. While this is tertiary prevention, it is an effort to save lives due to the effects of heart disease. In 1982, the main thrust of the Programme was increased programme promotion and expansion of the Programme into the community. Over the year, this Programme continued to be available to all City employees. In addition, courses were offered, upon request, to individuals and groups in the community.

Approximately three courses were offered monthly over the year; these comprised one each of the Basic Rescuer, Heartsaver and Re-certification courses. The numbers trained in the different levels of CPR over the year were:

Instructor (new) — 12
Instructor (re-certified) — 8
Basic Rescuer (new) — 99
Heartsaver (new) — 220
Re-certifications
(Heartsaver and Basic Rescuer) — 33

On an ongoing basis, liaison with the Ontario Heart Foundation was maintained regarding updating of promotional and educational materials, as well as the criteria and techniques for Cardiopulmonary Resuscitation.

Housing for Ex-Psychiatric Patients
Since the Fall of 1981, the Western Health Area Community Advisory Board and Western Health Area Managers have actively addressed the need for shelter for the homeless in the South Parkdale area as an immediate priority. The concern was born of continued frustration of community residents and workers who realized that ex-psychiatric patients (on being released from Queen Street Mental Health Centre) were not being adequately and/or appropriately served with housing.

By bringing together spokespersons of both the professional community (i.e., church and legal workers) and the representative community persons who speak for fellow ex-psychiatric patients, the Western Health Area Community Advisory Board and Department staff have been able to continue the momentum generated by the concerned members of the South Parkdale community. It is anticipated that both staff and the Community Advisory Board will continue to be involved in this complex issue.

Health Status in the Junction Triangle
The Junction Triangle (census tract 98) is a small pocket of integrated residential and industrial properties in the Western Health Area. Over the past several years, residents have shown great concern not only about the odours that emanate from their surroundings, but also about the short-term and potential long-term health effects related to their environment.

In 1982, the WHA and other members of the Department began planning the methods for assessing health status of Junction Triangle residents in comparison with other parts of the City.

A number of studies already have been conducted to examine the relationship between environment and health in the Junction Triangle. The demographic characteristics of the residents have been examined, as well as mortality, natality, and school absenteeism. School absenteeism was shown to be higher in Junction Triangle schools compared with the rest of the City. On the other hand, mortality rates and birth indicators of Junction Triangle residents were shown to be similar to the City as a whole. Finally, the Ministry of the Environment carried out an air monitoring programme in the Junction and also issued various abatement orders to some of the industries in the Area.

Despite these efforts, however, residents still are concerned about their health. The Mayor's Task Force on the Junction Triangle has recommended that the Department of Public Health conduct an epidemiologic study and that preliminary results be reported by

November 1983.

To meet this deadline, a Research and Advisory Committee was formed, consisting of a consultant epidemiologist, WHA staff, the Department epidemiologist in Central Resources, and research personnel. Plans were formulated to conduct a study in the Junction Triangle which would include a review of congenital anomalies data and a random sample community health status survey. The results of this study will be summarized in next year's report.

Eastern Health Area

Health Status

During the past year, a multi-faceted health planning process was initiated to identify the health needs in the Eastern Health Area (EHA). Tools used for this process were a modified Delphi survey of staff and community leaders; Area-specific mortality and birth data; and City-wide hospital morbidity data.

The major threats to health identified by the Delphi survey (a two-tier technique for surveying opinions of a large number of people) were 1) stress; 2) economic problems and unemployment; 3) isolation and loneliness in the elderly; 4) child abuse; 5) substance abuse; 6) smoking; 7) mental health problems and 8) cardiovascular disease. Major environmental problems were judged to be air and water pollution, toxic chemicals and occupational disease.

The mortality data, analysed in both frequency rates and potential years of life lost (PYLL), indicated that cardiovascular disease, cancer, suicide, burns, cirrhosis, as well as motor vehicle and other accidents were the major causes of death. An analysis of the Area-specific birth data disclosed a teenage pregnancy problem.

The only hospital morbidity data available are for hospital days and separations on a City-wide basis and they indicated major utilization for heart disease, mental health and pregnancy-related problems.

Based on the results of our total health planning process, a number of programmes have been identified as priorities: 1) stress management and reduction; 2) community care and support network building; 3) prevention of suicide; 4) motor vehicle accident prevention; 5) prevention of substance abuse; 6) control of toxic chemicals and prevention of occupational disease.

Lead Week

Because of concern in their community, members of the South Riverdale Community Health Centre Environmental Committee and the Eastern Health Area Management Team made a representation in the summer of 1981 to the Local Board of Health in response to a report prepared for the Department on low level lead exposure. The report, entitled *Health Effects of Low Level Lead Exposure with Special Reference to Certain Areas of Toronto* (July, 1981) was prepared by Drs. G.J. Stopps, J. Pauker and V. Alcock from the Faculty of Medicine, University of Toronto. As a result of the presentation by the Eastern Health Area and the South Riverdale committee, the Local Board of Health authorized a mass blood lead level screening of residents in the Eastern Health Area in 1982.

In preparation for "Lead Week" in October 1982, the Eastern Health Area worked closely with their Community Advisory Board and representatives from the South Riverdale Community Health Centre to gain community support and cooperation. Eventually, blood tests were carried out on over 2,200 residents of all ages by Eastern Health Area staff for 5 days in October, "Lead Week". A control group was also tested. The results showed that .4% of those screened had lead levels 30 micrograms per 100 millilitre of blood compared to 15% in 1974.

Later in the year, an educational pamphlet called "Get the Lead Out" was prepared for residents (and Torontonians in general), which included general information on lead contamination and a special section on how to reduce possible lead contamination from gardening and home renovations.

Passport to Health

In October 1982, Eastern Health Area staff introduced a new programme to grade 9 students at Lakeview Secondary School. This programme, called "Passport to Health", was designed by a multidisciplinary team of health professionals with input from school staff, parents and students, to generate involvement and interest among the students about health issues and the health effects of lifestyle choice.

The programme included screening for hypertension and carbon monoxide levels, dental, nutritional and vision problems, and cardiovascular fitness. Results were recorded in the student's passport booklet as his or her own personal record.

The Health Fair, which was the other component of Passport to Health, provided mounted displays on smoking, mental health, sexuality, physiology, breast self-examination, environmental health issues, drugs, nutrition, oral hygiene and a presentation by the community police on alcohol and driving.

An extensive evaluation of Passport to Health was conducted looking at 1) pre- and post-knowledge attitude levels; 2) identifying students with health risk factors; 3) interviews with selected students and feedback from staff and teachers. These results will be available in 1983.

Smoking Prevention Programme

During 1982, the Pilot Study of the Smoking Prevention Programme of the Department of Public Health was conducted in the Eastern Health Area. This multifaceted, community-based programme which began in January 1982, is aimed at preventing young Torontonians from starting to smoke. Four schools (and the neighbourhoods surrounding them) were selected. Multidisciplinary staff were involved with teacher preparation, classroom activities and school-community affairs.

In addition to the activities based in and around the four schools, several displays were placed throughout the community. As well, two

smoking awareness clinics held at Canada Metal Co. Ltd. were followed up by a Smoking Cessation Clinic conducted by the York-Toronto Lung Association.

This programme relies heavily on such other community agencies as the York-Toronto Lung Association and the Canadian Cancer Society - Beaches/Riverdale for their assistance and support. The Pilot Project was subsequently expanded to eight schools. Many new activities are taking place as each school develops the programme according to its own needs and interests.

Geriatric Dental Survey

The Community Advisory Board (CAB) of the Eastern Health Area formed a Dental Subcommittee in April, 1982. This Subcommittee comprised CAB members, public health staff, senior citizens, a community agency worker, and a private dentist. The mandate is to facilitate cooperative planning by staff, community representatives and consumers in the development of a comprehensive dental service for all residents of the Eastern Health Area. Comprehensive refers to a preventive and treatment service that is accessible and affordable to high risk groups, especially seniors and the low-income population.

In order to assess the dental needs of senior citizens living independently, the Committee joined forces with the Department of Community Dentistry, University of Toronto, to conduct a dental geriatric survey in the Eastern Health Area during August, 1982. The purpose of the study was three-fold:

1) to determine the dental health status of the elderly and their need for treatment;
2) to assess the utilization of dental services by the elderly;
3) to relate their ability in maintaining independence in life's activities to dental health status and utilization.

Three teams, comprised of one dentist and one dental hygienist/assistant, visited homes selected on a random basis and conducted interviews and dental examinations on senior citizens who signed consent forms. Of the 213 senior citizens who were surveyed, 120 were between the ages of 64 and 74 and 93 were between the ages of 75 and 85. Data from the survey will be analyzed in 1983.

Downtown Health Area

Health Status

The Downtown Health Area (DHA) is distinguished by a number of demographic factors: 1) 38% of its population is 20-34 years of age; 2) there are high concentrations of single parent families; and 3) the socioeconomic status of certain sections of the Area is particularly low compared with the rest of the City. It is possible that the low income level in the Downtown Health Area accounts for many of the health problems observed among its residents.

The other important demographic factor worth noting in the DHA is the large proportion of Chinese. 33.6% of the Chinese population in the City live in the DHA and many of these residents are new immigrants.

Since the DHA has the smallest population, it is not surprising that it had the lowest proportion of births of all the Health Areas (only 13.8% of all City births) in 1981. On the other hand, the DHA had the highest fertility rate among 15-19 year olds, and 20.6% of all live births were to single mothers (this was significantly higher than for the City as a whole). Also, half the census tracts with a high percent of low birthweight babies (the 90th percentile) are in the Downtown Health Area.

Compared with the other Health Areas, the DHA had a significantly lower mean age at death for males, females, and both sexes combined in 1981. Moreover, the age-standardized rates for ischaemic heart disease and all causes were significantly higher in both males and females. The age-standardized rates of a number of other diseases were also highest in the DHA; namely, cirrhosis, lung cancer, leukemia and motor vehicle accidents.

The five major causes of death for both males and females in the Downtown Health Area are ischaemic heart disease, myocardial infarction, cancer of the trachea and lung, other respiratory diseases and acute cerebrovascular disease (Table 33).

On an age-specific basis other causes of death seem to be important for both sexes combined. In the age groups 15-24 and 25-34, suicide is the most frequent cause of death while in 35-44 year olds cirrhosis is the leading cause.

PYLL is a measure of the relative impact of various diseases and lethal forces, indicating the potential number of years of life lost to society between ages one and 70. Suicide and motor vehicle accidents assume greater importance as causes of death when this statistic is considered. However, myocardial infarction and ischaemic heart disease also remain as important causes, as seen in Table 34.

Hearing Programmes

The Audiometric Screening Programme tests children for hearing problems in senior kindergarten, Grades 2 and 5 and in special programmes, on direct referral from school personnel or public health nurses. In addition, children who failed a previous test and children up to Grade 8 who have never been tested, are tested. Other programmes and activities include Early Childhood Health Appraisal, the Day Care Programme, Hearing Awareness Month, Health Teaching Programme for Grade 5 pupils, field experience for trainees from East York and Scarborough and a presentation to the Community Advisory Board. Since July, 1982, 96% of the students (1,153) were screened for hearing. One hundred and sixty-six (166) were retested and 77 referrals were made.

Table 33: Top Five Causes of Mortality, Males and Females, Downtown Health Area, 1981

Cause	Frequency		
	Males	Females	Total
Ischaemic heart disease	73	55	128
Myocardial infarction	58	32	90
Cancer, trachea lung	39	12	51
Other respiratory diseases	30	15	45
Acute cerebrovascular disease	19	21	40

Table 34: Number of Potential Years of Life Lost (PYLL) for Selected Causes of Death, Downtown Health Area, 1981

Cause	PYLL
Suicide	3008
Myocardial infarction	2691
Motor vehicle accident	1726
Ischaemic heart disease	1380
Cirrhosis	1325

Adult Immunization

The Adult Immunization Clinic provides advice and immunization to employees and the general public. The Clinic also provides travellers with immunization and information on malaria and water-borne diseases. A total of 2,108 clients including 1,353 new clients received immunization protection in 1982. There is also a weekly pre-exposure rabies clinic for employees of the Toronto Humane Society.

Dental Programme

The Dental Programme for school children consists of two main areas - Prevention and Treatment. The Prevention Programme includes the Dental Survey in elementary schools and the Preventive Dental Hygiene Programme. In the Dental Survey 5,802 children in public schools were examined; 3,678 had no defects. The Preventive Programme provided service to 4,131 children. Treatment was given in eight clinics providing full pedodontic services with the exception of orthodontic and custom-made space maintainers: 2,950 children received treatment. Additional dental health promotion activities included visits to all Day Care Centres, participation in four Health Fairs, Tooth Fairy appearances in all municipally-operated playgrounds, a geriatric presentation and, for Dental Health Week, a special promotion in one high school and a display in City Hall.

Food Poisoning

During 1982, an interesting investigation occurred of a suspected food poisoning outbreak in a hospital in the Downtown Health Area.

In September, 1982, the Department was notified of an outbreak of diarrheal illness in a large downtown hospital. A joint investigation by the Department of Public Health and hospital staff was immediately launched to stop the spread and determine the source. There were a total of 54 cases, all exhibiting similar symptoms, nausea, cramps, vomiting and diarrhea with most recording an onset within a three-hour period. Such an explosive outbreak suggested a common source, which appeared to be food. As well, the symptoms were consistent with those associated with toxin-producing organisms such as Staphylococcus or Clostridium perfringens.

Epidemiological tools, such as food-specific attack rate tables, failed to implicate a particular food. Food samples and clinical specimens showed no significant findings and inspections of the dietary department found conditions satisfactory. It was concluded that this was a suspect food poisoning of unknown or undetected etiology. Although inconclusive, this exercise demonstrated the ability of hospital and Downtown Health Area staff to work effectively as a team.

Central Resources

Although the Department of Public Health has decentralized into four separate Health Areas, many centralized functions were still maintained after reorganization to best serve the City.

Central Resources was created within the new structure of the Department to coordinate City-wide programmes and provide consultation in such diverse areas as maternal and child health, mental health, programme evaluation, epidemiology, occupational health, environmental health, nutrition, health education and promotion.

There are four sections in Central Resources: 1) Community Health Information; 2) Community Preventive Health; 3) Community Health Promotion and Advocacy; and 4) Community Health Protection. Each section is discussed briefly below. For further description of City-wide programmes coordinated by Central Resources staff, please refer to the next section.

Community Health Information Section
The Community Health Information Section includes a coordinator, epidemiologist, biostatistician, health planner, data analyst, and a statistical services unit. This section is responsible for the coordination, collection, analysis and dissemination of community health data and information. This includes the development of the data base on health status, analysis of City-wide and Area-specific data, as well as assistance with programme planning and evaluation.

The Community Health Information Section is responsible for a number of City-wide functions. In particular, members of this Section prepare the Health Status section of the Annual Statement each year, and are responsible for publication of the yearly Statement. In addition, the Community Health Information Section has written a number of reports on the City's Health Status.

City-wide health planning which includes establishing programme priorities, is coordinated through this group. Members of this Section also have been involved with a number of evaluation projects, including Healthiest Babies Possible, Passport to Health, the Community Streetworker Program, and the evaluation of reorganization of the Department.

Community Preventive Health Section
The Community Preventive Health Section includes a coordinator, communicable disease control advisor, psychiatric advisor, psychologist, family planning programme coordinator, adult health and rehabilitation consultant, school health consultant, education consultant, parent-child health consultant and nutritionist. This Section provides advice and consultation to the rest of the Department of Public Health in each of the above areas.

During 1982, activities in the Community Preventive Health Section other than City-wide programmes included the following: the conduction of in-service training programmes; orientation of new Departmental staff members and students; participation in planning and implementing City-wide programmes through membership on various work groups and task forces throughout the Department; and professional supervision, training and development of students in field placement from colleges and universities.

Community Health Promotion and Advocacy Section
As part of the reorganization of the Toronto Department of Public Health, the principles upon which the previous Health Advocacy Unit were based (i.e., development of a sound information data base combined with education, promotion and advocacy programmes to prevent ill health) were integrated throughout the Department, and particularly within the Community Health Promotion and Advocacy Section and the Community Health Information Section. As well, the Unit's focus on the social, political and economic factors related to health are also being incorporated into Departmental programme planning.

The Community Health Promotion and Advocacy Section is comprised of a coordinator, one health educator, a health advocate, two health promoters and a public relations coordinator. Plans were underway to hire a health educator, a multicultural worker and a Southeast Asian community worker in 1983.

As part of the transition from the Health Advocacy Unit, a number of Departmental projects were continued within the Community Health Promotion and Advocacy Section. These include the 20-year Smoking Prevention Programme, organization of the Breastfeeding Coalition, Video Display Terminal (VDT) information outreach, and publication of *The Chemical Society Action Manual.*

Community Health Protection Section
Comprised of a coordinator, two investigative researchers, a health educator, and an occupational health specialist, this Section of Central Resources is concerned primarily with industrial hygiene, environmental sanitation, communicable disease investigation, urban sanitation, and education and food control.

In 1982, the Community Health Protection Section was involved in the delivery of Food Handler Education programmes, preparation of a nuclear pamphlet on the potential health effects of a nuclear weapon if detonated over Toronto, presentations of a slide/tape show on rabies, the development of a protocol on the Department's hospital infection control programme, ongoing research on water quality, the development of an industrial hygiene programme for small businesses throughout the City, and a major review of the Department's approach to cockroach investigation.

City-wide Programmes

In addition to the programmes that address issues specific to each of the four Health Areas, the Department provides common, co-ordinated programmes across the City. These City-wide programmes deal with health problems that occur among citizens in all parts of Toronto and must be broadly based in order to have a positive impact. The majority of these programmes are directed to disease prevention and environmental protection. Several of these are described in the following pages.

Birth Control Week
In 1982, the Department's annual family planning awareness campaign was held in February. This campaign was intended to focus attention on effective means of preventing teenage pregnancies and was directed to health and social service professionals as well as adolescents.

The educational focus for the week was a youth theatre troupe known as S.T.A.R.R. (Students Talking About Responsible Relationships). This troupe, composed of eight students aged 15 to 18, were selected from among 50 teens. Performances consisted of a series of vignettes about teen sexuality, birth control methods and use, available services and teen perceptions of adult responses to adolescent concerns. At the end of each

performance the audience was encouraged to ask questions of the actors, both in and out of character.

During the week nearly 2,000 people saw the troupe perform, including students at six high schools, parents, social service staff and adolescents who attended a public showing at the St. Lawrence Centre, as well as Board of Education trustees and staff.

Other promotional activities included billboards placed throughout Metropolitan Toronto and distribution of pamphlets, keychains and similar materials to various agencies, schools and community organizations. The week's theme and events were well covered by the major media in the City.

Breastfeeding Coalition

The M.O.T.H.E.R.S.' Breastfeeding Coalition was formed in 1982 as an outgrowth of a seminar on "Mothers' Milk vs. Infant Formula." Its acronym communicates its objective of getting Metro Organized To Help Encourage Research and Support for breastfeeding. A long-range goal is to create an atmosphere where breastfeeding is facilitated and the value of human milk for the infant is better appreciated.

The Coalition initiated the designation of October as National Breastfeeding Month and hosted a 2-day international conference, "In Support of Breastfeeding" at which the senior nutritionist for UNICEF conducted a workshop. A featured speaker at another session was one of the drafters of the "W.H.O. Code on the Marketing of Breastmilk Substitutes". Follow-up work on breastfeeding is continuing.

Care of Discharged Psychiatric Patients

Support services in the community for discharged psychiatric patients have not been fully developed. As a result, patients have been left with inadequate or no housing and many lack necessary life skills. Many of these people are attracted to rooming and boarding homes close to the Queen Street Mental Health Centre, thus the Parkdale area has become a "psychiatric ghetto". Some mental health workers estimate the numbers in the Parkdale area to exceed one thousand.

The Department has been actively involved in assisting the integration of these patients back into the community. For instance, on April 21, 1982, the Local Board of Health sponsored a public forum in the Council Chamber, City Hall to discuss a report on the *Queen Street Mental Health Centre: An Organizational Review* (January 8, 1982), by Peat, Marwick and Partners, Management Consultants. As well, the report's recommendations for the future of Queen Street Mental Health Centre and its implications for mental health services in Metropolitan Toronto were discussed.

The Medical Officer of Health presented two reports to the Local Board of Health entitled *Patterns of Bed Utilization in General Hospital Psychiatric Units in Metropolitan Toronto* (April 16, 1982) and an *Interim Report on a Personal Care By-Law* (September 17, 1982).

In May, 1982, a report, *The Housing Gap: Deficiencies In Appropriate Housing For Ex-Psychiatric Patients* (May 31, 1982), was completed as a joint study by the City of Toronto Department of Public Health and the Supportive Housing Coalition.

The Department will continue to encourage the development of a comprehensive mental health network for Metropolitan Toronto involving provincial psychiatric hospitals (Queen Street Mental Health Centre and Whitby Psychiatric Hospital), general hospital psychiatric units, health departments, community mental health organizations and agencies and self-help groups.

The Chemical Society

The report, *Our Chemical Society - Chemicals, Environment and Health: A Manual for Action* (1982) was published to encourage citizen participation in health issues related to chemical use, including air and water pollution, drug, cigarette and alcohol addiction and workplace hazards. The 60-page illustrated spiral-bound book identifies hundreds of ways individuals and groups can participate in efforts to control the use, abuse and disposal of toxic chemicals. Inside the manual, the reader will find: 1) names and addresses of hundreds of organizations already active in Chemical Society issues (environmental groups, health and safety organizations etc.); 2) suggestions on how to protect children from poisonous substances; 3) section on government decision-makers; 4) where to go for help in quitting smoking or drinking; and 5) bibliography and catalogue of resource materials, etc.

City-Wide Inspection

The 50 health inspectors in the Department are responsible for ensuring that food premises, housing and recreational facilities are maintained and operated in line with provincial standards. Assessments are made both on a routine and complaint basis.

A total of 12,773 premises received 129,296 inspection visits during 1982, many of which received more than one visit. Most visits concerned food and rodent control although recreation sanitation had the largest average number of routine visits. Six out of ten complaints concerned sanitation in housing. Most routine inspections were related to food control and included bakeries, food preparation plants, vending facilities and so on. The focus of these visits is the control of communicable diseases spread through environmental conditions.

Inspections may result in several types of outcomes, of which reports and verbal notices were the most common actions taken in 1982. Occasionally, premises must be closed due to major violations and this occurred 11 times in 1982. Food was condemned in close to 26,000 cases, over half of which occurred in the Western Health Area, attributed to a badly spoiled crop of grapes for that year. Overall, improvements were reported in almost 15,000 cases where infringements were found.

Communicable Diseases

A number of new measures were undertaken to improve the Department's role in combatting communicable diseases, particularly sexually transmitted diseases and tuberculosis.

At the Local Board of Health's request the Department undertook an examination of its venereal disease programmes, which resulted in twenty-nine recommendations for improvements and innovations. The report, *A Reassessment of the Venereal Disease Programs in the Department of Public Health* (December 9, 1981) was adopted by the Local Board of Health and City Council and work began on changes in 1982.

In order to expedite recordkeeping, the computerization of sexually transmitted diseases data was begun in late 1982. Other actions that emanated from the report included a series of meetings with special treatment clinic staff in downtown hospitals, discussions with Hassle Free Clinic regarding special educational and promotion programmes and plans for a community sentinel physician reporting system.

When the Ministry of Health's Chest Clinics were closed in late 1982, the Department's TB programme stepped in to fill the gap. A mechanism was established for receiving drug orders from physicians, and ways of providing services for TB patients who do not have OHIP coverage were expanded.

Planning for the computerization of communicable disease control records moved towards the implementation stage targetted for January 1983. This entailed a training programme with Health Area staff and a redesign of procedures and forms. Area staff prepared a Communicable Disease Control Field Manual to ensure uniform and simplified services to the community.

Departmental Task Force on Compulsory Immunization of Pupils

In July, 1982, the Province of Ontario passed legislation (the *Immunization of School Pupils Act, 1982*) that requires all Ontario pupils under the age of eighteen to be immunized against diphtheria, tetanus, poliomyelitis, measles, mumps and rubella - unless exempted for medical or religious reasons. Implementation of the legislation is at the health unit level. To coordinate Departmental planning for the implementation of this legislation, a multidisciplinary Task Force on Compulsory Immunization was struck, and chaired by a Department of Public Health member from the Western Health Area.

Programme planning and the development of relevant materials were carried out by the Task Force members, each in his/her area of expertise, with input from staff of the Health Areas and Central Resources.

A considerable amount of time was spent during the beginning of the 1982-83 school year to ensure that all children entering school for the first time were properly protected from the major childhood communicable diseases. The following table shows the number of children in City schools and their immunization status as of the end of the year.

Immunization Promotion

In the summer of 1982 an ongoing promotion group (a subcommittee to the Departmental Task Force on Compulsory Immunization) was set up to help promote the new Ministry of Health immunization legislation.

The promotion group had representation from each Health Area (Community Health Officers) and was chaired by a member of Central Resources. Guidelines were developed to aid in the development of materials, outreach strategies were developed and special attempts were made to reach ethnic and non-literate populations in the City. Promotion materials were developed in nine languages (English, French, Chinese, Greek, Vietnamese, Portugese, Italian, Polish, Spanish). The promotion group's efforts were designed to complement the promotional work of the Ministry of Health, which has produced radio jingles, posters, pamphlets and public transit ads.

Family Planning Clinical Services

As part of the family planning programme the Department of Public Health administers four birth control clinics. During 1982, a total of 17,027 people were served through these clinics. Close to 7,000 were new visits while the remainder were follow-up visits. The majority of clients were seeking contraception, and the most popular method of choice was the oral contraceptive. This was partly related to the fact that the clients tend to be young, single women who are common users of the pill. While all the clinics provide similar services, each has distinctive features that appeal to different types of clients. For example, the Immigrant Women's Centre serves women from various ethnic groups, often in their own language, who may have difficulty with an unfamiliar medical system. Hassle Free Clinic attracts transient people who may not have medical coverage. The Bay Centre for Birth Control receives a high volume of single women under 25.

The Family Planning Clinic at the Toronto General Hospital was closed on December 31, 1982, to facilitate the opening of a clinic in the Eastern Health Area at Riverdale Community Health Centre.

The clinical services provide an essential complement to the educational and promotional activities provided by the family planning community workers.

Table 35: Immunization Status of School Children Entering Kindergarten, 1982

	Number with Immunization Complete		Number with Immunization Incomplete		Number with Status Unknown		
	No.	%	No.	%	No.	%	Total
Series + booster of DPT or DPTP*	7,654	76.6	1,315	13.2	1,013	10.2	9,982
MMR (Measles, Mumps, Rubella)	8,432	84.5	530	5.3	1,020	10.2	9,982

* Completed immunization is defined as a primary series (3 doses) of diphtheria toxoid, pertussis vaccine, tetanus toxoid and poliomyelitis vaccine plus one booster dose OR a primary series (3 doses) of diphtheria toxoid, pertussis vaccine, tetanus toxoid plus 1 booster dose and a primary series (3 doses) of live oral poliomyelitis vaccine plus 1 booster dose.

Healthiest Babies Possible

Healthiest Babies Possible (HBP) is a prenatal outreach service for high risk pregnant women. A total of 324 referrals were made in 1982 to the programme, with the greatest percentage of referrals (40%) being made by clients themselves.

The programme reaches out to the high risk pregnant population in the City of Toronto. Some of the risk factors include poor diet, adolescence, low income and poor obstetrical history. In 1982, approximately 75% of the HBP clients presented with two to four risk factors. Although the greatest proportion (42% or n=92) of the women reached were in the 20-25 year age range, 31% (n=69) were 19 years of age or under. In addition, 51% (n=107) of the HBP clients were single, and approximately two-thirds were pregnant with their first or second child.

Seven percent (7%) of the HBP clients gave birth to infants 2500 grams or less. When compared with 1981 statistics, this represented a decrease of approximately 2% in the number of low birthweight babies born to HBP clients in 1982. Seventy-seven percent (77%) of the HBP babies weighed between 6 pounds and 8 pounds 15 ounces.

In 1982, the HBP Evaluation Committee, with representation from a multidisciplinary team including nutrition, public health nursing, health promotion and epidemiology, developed a plan for evaluating the programme, which will be implemented over the coming years.

Industrial Hygiene

In this new area of Departmental concern, attention has been given to identifying small businesses that have fewer than five employees.

Staff then identify health concerns for persons working in these environments. A programme for these businesses will be carried out throughout the City. To date, draft information packages have been developed for small auto shops and garages in the Eastern Health Area.

Jessie's

In 1980, a Task Force on Teenaged Mothers was established, comprised of representatives from Metropolitan Toronto health and social service agencies. The Task Force began meeting to address the problems of the increasing rate of teenage pregnancy, the increasing number of teens who are keeping their babies, and the lack of support available to these adolescents. The outcome of the Task Force's work was the birth of Jessie's Centre for Teenagers.

Jessie's serves teenagers under nineteen, specifically young mothers-to-be and those with babies. It offers a comprehensive programme including friendship, counselling, assistance, support, referral and health care to enable the development of self-esteem and independence among its clients. Some of the services include: pregnancy testing and counselling, birth control information, prenatal classes, parenting support groups, drop-in-centre, baby clothes and supplies, parent relief and 24-hour respite care.

The Department of Public Health is represented on the Jessie's Board of Directors and its Health Committee, and the Western Health Area provides a public health nurse to Jessie's for one and a half days per week. Furthermore, the Downtown Health Area provides the services of a clinical nurse specialist in maternal and child health to Jessie's on a full-time basis.

Multicultural Committee
The City of Toronto has become the largest cosmopolitan centre in Canada, with 50% of its residents with a mother tongue other than English. The ethnic communities, when considered together, now form a major group, dominated by Italian, Portuguese, Greek, Chinese, Caribbean, Polish and French.

Health services in Toronto are not fully utilized by immigrants due to language and cultural differences and a wide range of health beliefs, attitudes and superstitions. The purpose of the Multicultural Committee is to recommend programmes to enhance the knowledge and awareness of Department of Public Health staff on multicultural health issues and to facilitate the development, delivery and use of health services by ethnic groups.

Nuclear Pamphlet
A pamphlet was prepared for Toronto citizens on the potential health effects of a nuclear weapon detonated over Toronto. These pamphlets were distributed before the November 1982 Civic election and asked whether voters supported a bilateral, verifiable reduction in nuclear armament.

Ongoing Day Care Programme
"Future Directions for Day Care Services in Metro Toronto", a report published by the Metropolitan Toronto Task Force on Day Care Services, estimates that 12.8% of the children in Toronto day care centres possess special needs of some kind, most in the categories of emotional or environmental problems. The psychologist for the City of Toronto Department of Public Health reports that in some day care centres or day nurseries in Toronto, up to 50% of the children from low socioeconomic backgrounds may have special needs.

Several of these children are in day care centres and day nurseries where it is possible to reverse some of the effects of poverty. Unfortunately, while day care centres theoretically provide excellent opportunities to provide individualized programmes for children with special needs, few have the special resources necessary to be effective.

A limited consultative programme has been offered by the Department to 15 to 20% of Toronto's day care centres. A team consisting of a psychologist and eight mental health nurses provide mental health consultation, parent education and programme interventions.

Preconception and Prenatal Education in the Workplace
Evidence shows that healthier mothers produce healthier babies and that there is a relationship between certain maternal lifestyle habits and high risk pregnancies. The Department endeavours to provide health information to childbearing women in order to promote a healthy pregnancy and the healthiest baby possible. One way of reaching some high risk women is through their place of employment.

A lunch hour Preconception Programme was offered at Queen's Park and the Workmen's Compensation Board to women who would be unlikely to attend a similar evening programme. A Prenatal Education programme was also offered to women at City Hall during the lunch hour.

The Preconception Programme is a series of seven to eight one-hour classes covering: 1) factors to consider when deciding whether to become pregnant; 2) how to increase the likelihood of conceiving at a certain period of time; 3) how to prepare for a healthy pregnancy and the healthiest baby possible; 4) how to reduce the risk of complications during pregnancy; and 5) how to relax and reduce stress.

The Prenatal Programme is a series of eight one-hour classes, held weekly. Women are provided with information on: prenatal and family nutrition; pregnancy, labour and delivery; and infant care. In addition, they are trained in relaxation, toning exercises, breathing and comfort techniques for use in the prenatal, intrapartum and postpartum period.

Training Task Force
In 1982, the Department of Public Health was about to embark upon some significant changes in its delivery of public health care by decentralization of services. The Training Task Force (TTF) produced a series of 11 one-day seminars, entitled *Public Health in the 1980's*, designed to convey to all Department of Public Health personnel the key concepts involved in making these changes. The seminars were presented to staff prior to decentralization of the Department.

A slide-tape presentation, *The First Hundred Years: Public Health in Toronto*, was created as part of the seminars, and will be adapted for use in new staff orientations, community outreach etc. Special skills-training continued with TTF assistance until the Task Force was disbanded in June 1982.

A final report with recommendations for the assessment of training and development needs, and the implementation and evaluation of related programmes and activities was prepared to assist in future endeavours.

Video Display Terminals (VDT) Outreach
Workshops and seminars of the health effects of Video Display Terminals continued throughout the City during 1982. Upon request from management personnel, workers, professional organizations or unions, Department of Public Health staff organized field educational programmes to help facilitate change in the workplace to improve health conditions for VDT workers. Hundreds of requests have been received for the 25-page VDT report and eight-page pamphlet. The VDT Subcommittee of the City Hall Occupational Health and Safety Co-ordinating Committee has acquired funds to improve VDT workstations at City Hall, and to have educational programmes for all City Hall staff who work on VDTs. A half-hour slide-tape show was prepared by the Subcommittee as an educational tool for these workshops and is narrated by two Department of Public Health staff.

Vital Statistics Tables

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Table I: Summary of Vital Statistics, City of Toronto, 1972 - 1982

Indicator	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Birth rate (1)	16.5	16.1	15.1	14.7	13.9	13.5	12.8	12.4	13.5	12.8	13.5+
Illegitimacy ratio (2)	11.2	10.9	10.9	10.1	10.7	10.9	11.0	13.0	12.1	13.4	14.8
Stillbirth rate (3)	12.5	11.5	13.3	11.2	10.0	8.3	9.7	8.6	6.0	6.6	7.3
Fertility rate (4)	70.0	68.3	64.0	62.3	59.1	57.4	52.4	50.9	53.0	50.4	53.3+
General death rate (1)	9.1	9.3	9.1	8.6	8.4	8.5	8.4	8.3	8.5	8.6	8.4+
Standardized death rate (5)	7.1	7.4	7.2	6.8	6.9	6.8	6.6	6.3	6.1	5.8	5.6+
Infant mortality rate (6)	14.7	14.2	12.2	12.6	11.5	10.0	11.1	11.0	10.2	8.4	7.6
Neonatal mortality rate (7)	10.4	10.5	8.6	9.1	7.8	7.9	8.5	8.5	6.3	5.3	5.1
Natal day mortality rate (8)	5.0	5.6	4.3	4.4	4.6	3.7	4.5	3.3	3.0	3.3	2.0
Perinatal mortality rate (9)	19.2	17.3	17.6	16.1	5.0	13.1	14.8	12.9	9.3	10.3	8.9
Maternal mortality (10)	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0
Average age at death (in years)	67.7	67.7	68.4	68.2	68.2	68.9	68.7	69.5	70.3	70.7	70.1
Males	65.2	66.0	65.9	65.8	66.0	65.3	66.1	66.5	66.1	68.3	66.8
Females	70.9	70.8	71.6	71.2	71.1	72.6	72.0	73.1	72.9	73.7	74.1

(1) Per 1,000 population

(2) Live births to single, widowed, and divorced women, per 100 total live births

(3) Stillbirths of 20 or more weeks' gestation, per 1,000 live births

(4) Live births per 1,000 women aged 15-44 years

(5) Based on standard population, Canada 1976 Census

(6) Deaths under 1 year of age, per 1,000 live births

(7) Deaths under 28 days of age, per 1,000 live births

(8) Deaths under 1 day of age, per 1,000 live births

(9) Deaths under 1 week of age plus stillbirths of 28 or more weeks' gestation, per 1,000 live births and stillbirths (28 or more weeks' gestation)

(10) Deaths due to complications of pregnancy, childbirth and the puerperium, per 1,000 live births

\+ 1981 Assessment population used as the denominator

Table II: Population and Natural Increase, 1972-1982

Year	Assessment Population*	Increase or Decrease Number	Percent	Excess of Births Over Deaths (Residents)	Rate of Natural Increase +
1972	677,198	- 8,662	-1.26	5,074	0.74
1973	660,619	-16,579	-2.45	4,579	0.68
1974	650,587	-10,032	-1.52	4,071	0.62
1975	642,548	- 8,039	-1.24	4,144	0.64
1976	630,421	-12,127	-1.89	3,761	0.59
1977	619,004	-11,417	-1.81	3,325	0.53
1978	609,232	- 9,772	-1.58	2,802	0.45
1979	606,056	- 3,176	-0.52	2,658	0.44
1980	602,489	- 3,567	-0.59	2,967	0.49
1981	594,073	- 8,416	-1.40	2,512	0.42
1982	NA**	NA**	NA**	3,033	0.51 + +

* Source: Metropolitan Toronto Planning Department

\+ The percent difference between the birth rate and the crude death rate

** 1982 Assessment population not available

\+ + Rates based on 1981 population

Table III: Births and Stillbirths by Sex, 1978 - 1982

	1978	1979	1980	1981	1982
Live births	8,230	7,906	8,103	7,597	8,033
Male	4,212	4,155	4,160	3,877	4,138
Female	4,018	3,751	3,943	3,720	3,895
Ratio: males to 1,000 females	1,048	1,108	1,055	1,042	1,062
Live birth rate per 1,000 population	13.5	13.0	13.4	12.8	13.5*
Stillbirths +	80	68	49	50**	59
Male	45	38	36	20	31
Female	35	30	13	29	28
Stillbirth rate per 1,000 live births	9.7	8.6	6.0	6.6	7.3
Live births and stillbirths +	8,310	7,974	8,152	7,647	8,092
Number hospitalized	8,251	7,895	8,058	7,527	7,994
Percent hospitalized	99.3	99.0	98.8	98.4	98.8

* 1981 Assessment population used as denominator

\+ Includes stillbirths of 20 or more weeks' gestation

** Sex unknown for one stillbirth

Table IV: Live Births by Age of Mother and Order of Birth, 1982

Order of Birth	Age of Mother: Less Than 20	20-24	25-29	30-34	35-39	40-44	45+	Total: Number	Total: Percent
1st child	513	1,172	1,346	844	220	22	2	4,119	51.3
2nd child	80	533	860	800	253	23	0	2,549	31.8
3rd child	6	131	294	358	161	23	2	975	12.2
4th child	0	17	58	111	51	9	1	247	3.1
5th child	0	3	22	26	24	4	0	79	1.0
6th child	0	1	2	10	16	5	0	34	0.4
7th child	0	0	1	1	6	2	0	10	0.1
8th child	0	0	0	0	2	2	1	5	0.1
9th child	0	0	0	0	1	0	1	2	0.02
10th child or more	0	0	0	0	3	0	0	3	0.04
Total	599	1,857	2,583	2,150	737	90	7	8,023*	100.1+
Percent	7.5	23.1	32.2	26.8	9.2	1.1	0.1	100.0	

* Total number of births 8,033; missing values for 10 births

+ Does not add to 100.0 due to rounding

Table V: Number of Deaths and Rates, 1972-1982

Year	Deaths, All Causes: Number	General Death Rate*	Infant Deaths: Number	Infant Mortality Rate+	Maternal Deaths: Number	Maternal Mortality Rate+
1972	6,326	9.3	168	14.7	1	0.1
1973	6,287	9.5	154	14.2	0	0.0
1974	6,198	9.5	125	12.2	1	0.1
1975	5,909	9.2	127	12.6	1	0.1
1976	5,675	9.0	109	11.6	1	0.1
1977	5,633	9.1	90	10.0	0	0.0
1978	5,428	8.9	91	11.1	0	0.0
1979	5,248	8.7	87	11.0	0	0.0
1980	5,136	8.5	83	10.2	1	0.1
1981	5,085	8.6	64	8.4	0	0.0
1982	5,000	8.4	61	7.6	0	0.0

* Per 1,000 population

+ Per 1,000 live births

Table VI: Infant Deaths (number) and Rates* by Selected Age Groups, 1977-1982

Age Group	1977		1978		1979		1980		1981		1982	
	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Under 1 day	33	3.7	37	4.5	26	3.3	24	3.0	25	3.3	16	2.0
1 day and under 7 days	32	3.6	22	2.7	26	3.3	19	2.3	11	1.4	18	2.2
7 days and under 28 days	6	0.7	11	1.3	15	1.9	8	1.0	4	0.5	7	0.9
Total under 28 days	71	7.9	70	8.5	67	8.5	51	6.3	40	5.3	41	5.1
28 days and under 3 months	7	0.8	8	1.0	8	1.0	10	1.2	10	1.3	7	0.9
3 and under 6 months	7	0.8	7	0.9	8	1.0	14	1.7	12	1.6	7	0.9
6 and under 12 months	5	0.5	6	0.7	4	0.5	8	1.0	2	0.3	2	0.2
All ages under 1 year	90	10.0	91	11.1	87	11.0	83	10.2	64	8.4	61+	7.6

* Per 1,000 live births
+ Age missing for 4 observations

Table VII: Infant Deaths (under 1 year) by Age Group, Sex, and Cause, 1982

CAUSE OF DEATH	Age Group: Less Than 1 Day		1-6 Days		7-27 Days		28 Days-2 Months		3-5 Months		6-12 Months		Total Under 1 Year	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Congenital anomalies	2	2	6	2	3	1	0	0	1	1	0	1	12	7
Prematurity	3	2	2	1	0	1	0	0	0	0	0	0	5	4
Sudden infant death syndrome	0	0	0	0	0	0	2	0	2	2	0	1	4	3
Respiratory distress syndrome	1	1	0	0	0	1	0	0	0	0	0	0	1	2
Other perinatal conditions	1	2	6	0	0	0	0	0	0	0	0	0	7	2
All other causes	1	1	1	0	1	0	5	0	1	0	0	0	12*	2+
Total	8	8	15	3	4	3	7	0	4	3	0	2	41*	20+
	16		18		7		7		7		2		61	
% Total deaths under 1 year	26.2		29.5		11.5		11.5		11.5		3.3		100.0	

* Age missing for 3 observations
+ Age missing for 1 observation
** Age missing for 4 observations

Table VIII: Percentage Distribution of Age at Death, by Sex, 1940-1982

Age Group	Percentage Distribution 1940	1950	1960	1970	1980	1982 Male No.	Male %	Female No.	Female %	Total No.	Total %
Under 1	5.0	4.9	4.8	3.4	1.6	38	0.8	19	0.4	57	1.1
1-4	0.6	0.7	0.5	0.4	0.2	7	0.1	1	0.02	8	0.2
5-9	0.6	0.3	0.2	0.3	0.3	3	0.1	2	0.04	5	0.1
10-14	0.6	0.2	0.3	0.2	0.2	3	0.1	2	0.04	5	0.1
15-19	0.8	0.3	0.3	0.4	0.5	16	0.3	6	0.1	22	0.4
20-24	1.2	0.8	0.5	0.6	0.8	27	0.5	7	0.1	34	0.7
25-29	1.4	0.8	0.7	0.9	1.1	34	0.7	12	0.2	46	0.9
30-34	1.6	1.0	0.8	1.0	1.2	42	0.8	19	0.4	61	1.2
35-39	2.3	1.5	1.4	1.2	1.1	30	0.6	18	0.4	48	1.0
40-44	3.3	2.5	1.5	2.3	2.0	49	1.0	38	0.8	87	1.7
45-49	4.7	3.7	3.3	3.6	2.5	92	1.8	50	1.0	142	2.8
50-54	7.0	5.8	4.7	4.9	4.9	157	3.1	76	1.5	233	4.7
55-59	9.0	7.6	7.0	7.2	6.7	248	5.0	105	2.1	353	7.1
60-64	9.7	11.1	9.7	8.8	7.8	241	4.8	126	2.5	367	7.3
65-69	11.4	12.9	11.3	11.6	10.6	324	6.5	196	3.9	520	10.4
70-74	12.9	13.2	13.3	13.3	12.7	376	7.5	277	5.5	653	13.1
75-79	12.0	12.5	15.7	12.9	13.5	350	7.0	333	6.7	683	13.7
80-84	9.4	10.1	12.2	13.0	12.8	345	6.9	388	7.8	733	14.7
85+	6.5	10.1	11.8	14.0	19.4	328	6.6	611	12.2	939	18.8
All ages						2,713*	53.4	2,287+	45.8	5,000**	100.0

* 3 observations missing age

\+ 1 observation missing age

** 4 observations missing age

Table IX: Age-Adjusted Death Rate,* 1972 and 1982

Age Group	Toronto's Age-Specific Death Rates 1972	Toronto's Age-Specific Death Rates 1982+	Canada's Age Distribution Per 1,000 1976 Census	Computed Deaths Per 1,000 of Canada's Total Population, on Basis of Age-Specific Rates for Toronto 1972	Computed Deaths Per 1,000 of Canada's Total Population, on Basis of Age-Specific Rates for Toronto 1982
0 - 4	4.76	2.90	76.328	0.359	0.219
5 - 9	0.19	0.15	82.105	0.015	0.013
10 - 14	0.22	0.14	99.005	0.022	0.014
15 - 19	0.63	0.53	102.000	0.064	0.054
20 - 24	0.74	0.58	92.804	0.069	0.054
25 - 29	1.05	0.71	86.683	0.091	0.062
30 - 34	1.20	1.05	70.783	0.085	0.074
35 - 39	2.13	1.11	57.792	0.123	0.064
40 - 44	3.34	2.55	55.158	0.184	0.141
45 - 49	5.60	4.50	54.489	0.305	0.245
50 - 54	8.32	7.13	53.068	0.442	0.379
55 - 59	13.71	11.15	44.320	0.608	0.494
60 - 64	17.67	14.05	39.378	0.696	0.553
65 - 69	27.01	21.72	31.350	0.847	0.681
70 - 74	36.13	30.77	23.213	0.839	0.714
75 - 79	42.30	40.20	15.775	0.667	0.634
80 - 84	56.20	58.70	9.593	0.539	0.563
85+	99.58	91.83	7.156	0.713	0.657
All ages	9.22	8.42	1,000.000	6.668	5.615

* The age-adjusted death rates shown in the table indicate what the level of mortality would have been had there been no changes in the age composition of the population from year to year. The rates as shown for selected age groups, for the years 1972 and 1982, were computed by the direct method; that is, by applying the age-specific death rates for deaths from all causes for those age groups to a standard population. The 1976 Canada Census Population, as enumerated by Statistics Canada, was selected as the standard.

\+ 1981 assessment population used to calculate rates

Table X: Principal Causes of Death and Rates, 1973 - 1982

Cause of Death	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982+
					Number of Deaths					
Heart disease	2,293	2,239	2,049	1,934	2,007	1,840	1,782	1,726	1,562	1,584
Cancer	1,352	1,316	1,297	1,309	1,243	1,255	1,235	1,182	1,258	1,230
Cerebrovascular disease	520	574	463	478	438	390	427	392	425	398
Accidents, all types	312	294	322	289	276	257	277	266	228	201
Pneumonia	248	229	258	176	208	214	151	190	184	157
Disease of arteries	189	188	147	155	166	149	122	161	140	119
Suicide	145	147	128	117	142	149	124	120	108	129
Cirrhosis of liver	158	150	145	144	128	125	104	103	101	82
Chronic obstructive lung disease	na	na	na	na	na	89	123	92	151	128
Diabetes mellitus	116	89	84	95	77	66	83	81	76	70
					Rate Per 100,000 Population					
Heart disease	347.1	344.2	318.9	306.8	324.2	302.0	294.0	286.5	262.9	266.6
Cancer	204.7	202.3	201.9	207.6	204.1	206.0	203.8	196.2	211.8	207.1
Cerebrovascular disease	78.7	88.2	72.1	75.8	70.8	64.0	70.5	65.1	71.5	67.0
Accidents, all types	47.2	45.2	50.1	45.8	44.6	42.2	45.7	44.2	38.4	33.8
Pneumonia	37.5	35.2	40.2	27.9	33.6	35.1	24.9	31.5	31.0	26.4
Disease of arteries	28.6	28.9	22.9	24.6	26.8	24.5	20.1	26.7	23.6	20.0
Suicide	21.9	22.6	19.9	18.6	22.9	24.5	20.5	19.9	18.2	21.7
Cirrhosis of liver	23.9	23.1	22.6	22.8	20.7	20.5	17.2	17.1	17.0	13.8
Chronic obstructive lung disease	na	na	na	na	na	14.6	20.3	15.3	25.4	21.5
Diabetes mellitus	17.6	13.7	13.1	15.1	12.4	10.8	13.7	13.4	12.8	11.8

+ 1981 Assessment population used as denominator

Table XI: Leading Causes of Death for Selected Age Groups, 1982

Rank	Age Group and Cause of Death	Deaths in Age Group No.	Deaths in Age Group %	Deaths At All Ages	Deaths in Age Group as Percentage of Deaths at All Ages
	Under 1 Year				
1	Abnormal growth	9	15.8	9	100.0
1	Respiratory problems	9	15.8	10	90.0
3	Congenital heart disease	8	14.0	13	61.5
3	Ill-defined conditions	8	14.0	172	4.7
5	Congenital anomalies	6	10.5	10	60.0
6	Anencephalus	4	7.0	4	100.0
7	Fetus with complications	3	5.3	3	100.0
	All other causes	10	17.5	4,779	0.2
	Total	57	99.9*	5,000	1.1
	1-4 Years				
1	Burns	2	25.0	20	10.0
2	Leukemia	1	12.5	41	2.4
2	Meningitis	1	12.5	3	33.3
2	Falls	1	12.5	85	1.2
2	All other cancers	1	12.5	54	1.9
2	Other viral disease	1	12.5	5	20.0
2	Ill-defined condition	1	12.5	172	0.6
	All other causes	0	0.0	4,620	0.0
	Total	8	100.0	5,000	0.2
	5-14 Years				
1	Cancer, unspecified sites	2	20.0	92	2.2
1	All other cancers	2	20.0	54	3.7
3	Brain cancer	1	10.0	20	5.0
3	Leukemia	1	10.0	41	2.4
3	Motor vehicle accident	1	10.0	27	3.7
3	Falls	1	10.0	85	1.2
3	Burns	1	10.0	20	5.0
3	Drowning or submersion	1	10.0	3	33.3
	All other causes	0	0.0	4,658	0.0
	Total	10	100.0	5,000	0.2
	15-24 Years				
1	Suicide	13	23.2	129	10.1
2	Homicide	6	10.7	17	35.3
3	Motor vehicle accidents	5	8.9	27	18.5
4	Leukemia	4	7.1	41	9.8
4	Other external injury	4	7.1	14	28.6
6	Bone, tissue cancer	2	3.6	12	16.7
6	Other genitourinary cancer	2	3.6	149	1.3
6	Anemias	2	3.6	9	22.2
6	All mental disorders	2	3.6	7	28.6
6	All other central nervous system	2	3.6	54	3.7
6	Other respiratory	2	3.6	131	1.5
6	Other transportation accident	2	3.6	10	20.0
	All other causes	10	17.9	4,400	0.2
	Total	56	100.1*	5,000	1.1
	25-34 Years				
1	Suicide	29	27.1	129	22.5
2	Drug poisoning	9	8.4	21	42.9
3	Motor vehicle accident	6	5.6	27	22.2
3	Falls	6	5.6	85	7.1
5	Other genitourinary cancer	3	2.8	149	2.0
5	Myocardial infarction	3	2.8	681	0.4
5	Ill-defined condition	3	2.8	172	1.7
5	Homicide	3	2.8	17	17.6
	All other causes	45	42.1	3,719	1.2
	Total	107	100.0	5,000	2.1

	35-44 Years				
1	Suicide	23	17.0	129	17.8
2	Myocardial infarction	10	7.4	681	1.5
3	Female breast cancer	7	5.2	108	6.5
4	Cirrhosis	6	4.4	82	7.3
5	Lung, trachea cancer	5	3.7	280	1.8
5	Other accidents	5	3.7	25	20.0
7	Homicide	4	3.0	17	23.5
	All other causes	75	55.6	3,678	2.0
	Total	135	100.0	5,000	2.7
	45-54 Years				
1	Myocardial infarction	50	13.3	681	7.3
2	Lung, trachea cancer	31	8.3	280	11.1
3	Ischaemic heart disease	25	6.7	635	3.9
3	Suicide	25	6.7	129	19.4
5	Female breast cancer	21	5.6	108	19.4
6	Cirrhosis	19	5.1	82	23.2
7	Ill-defined condition	15	4.0	172	8.7
8	Stomach cancer	11	2.9	65	16.9
9	Alcohol and drug dependency	10	2.7	45	22.2
10	Other digestive cancers	9	2.4	145	6.2
	All other causes	159	42.4	2,658	6.0
	Total	375	100.1*	5,000	7.5
	55-64 Years				
1	Myocardial infarction	122	16.9	681	17.9
2	Ischaemic heart disease	73	10.1	635	11.5
3	Lung, trachea cancer	72	10.0	280	25.7
4	Colon, rectum cancer	30	4.2	157	19.1
5	Other digestive cancer	29	4.0	145	20.0
6	Ill-defined conditions	27	3.8	172	15.7
7	Suicide	24	3.3	129	18.6
8	Female breast cancer	23	3.2	108	21.3
9	Other genitourinary cancer	22	3.1	149	14.8
9	Cirrhosis	22	3.1	82	26.8
	All other causes	276	38.3	2,462	11.2
	Total	720	100.0	5,000	14.4
	65-74 Years				
1	Myocardial infarction	191	16.3	681	28.0
2	Ischaemic heart disease	139	11.8	635	21.9
3	Lung, trachea cancer	85	7.2	280	30.4
4	Acute cerebrovascular disease	56	4.8	245	22.9
5	Other respiratory diseases	48	4.1	131	36.6
6	Other genitourinary cancer	46	3.9	149	30.9
7	Other digestive cancers	45	3.8	145	31.0
8	Colon, rectum cancer	42	3.6	157	26.8
	All other causes	521	44.4	2,577	20.2
	Total	1,173	99.9*	5,000	23.5
	75-84 Years				
1	Ischaemic heart disease	208	14.7	635	32.8
2	Myocardial infarction	202	14.3	681	29.7
3	Acute cerebrovascular disease	90	6.4	245	36.7
4	Lung, trachea cancer	67	4.7	280	23.9
5	Colon, rectum cancer	60	4.2	157	38.2
6	Ill-defined condition	54	3.8	172	31.4
7	Pneumonia	53	3.7	157	33.8
8	Other digestive cancer	50	3.5	145	34.5
	All other causes	632	44.6	2,528	25.0
	Total	1,416	99.9*	5,000	28.3
	85+ Years				
1	Ischaemic heart disease	187	19.9	635	29.4
2	Myocardial infarction	101	10.8	681	14.8
3	Acute cerebrovascular disease	78	8.3	245	31.8
4	Pneumonia	61	6.5	157	38.9
5	Other pulmonary heart disease	47	5.0	139	33.8
6	Atherosclerosis	35	3.7	61	57.4
7	Other genitourinary cancer	27	2.9	149	18.1
7	Falls	27	2.9	85	31.8
	All other causes	376	40.0	2,848	13.2
	Total	939	100.0	5,000	18.8

* Does not equal 100.0% because of rounding

rounding

Table XII: Summary of Causes of Death, 1978 - 1982

Cause of Death*	Number of Deaths 1978	1979	1980	1981	1982
Diseases of the Cardiovascular-Renal System	2,419	2,391	2,337	2,200	2,170
Heart disease	1,840	1,782	1,726	1,562	1,584
Cerebrovascular disease	390	427	392	425	398
Diseases of arteries, arterioles, capillaries	149	122	161	140	119
Hypertension without mention of heart	10	9	12	15	14
Nephritis and nephrosis	30	51	46	58	55
Cancer (Malignant Neoplasms)	1,255	1,235	1,182	1,258	1,213
Hodgkin's disease	5	7	5	8	9
Leukemia	42	47	59	32	41
All other malignant neoplasms	1,208	1,181	1,118	1,218	1,163
Violent and Accidental Causes	451	439	411	385	361
Accidents	257	277	266	228	201
Suicides	149	124	120	108	129
Homicides	29	25	19	20	17
Undetermined	16	13	6	29	14
Pneumonia, all forms	214	151	190	184	157
Cirrhosis of liver	125	104	103	101	82
Chronic obstructive lung disease	89	123	92	125	89
Diabetes mellitus	66	83	81	76	70
Alcoholism	61	51	45	44	44
Psychoses, all forms	36	35	39	45	53
Congenital anomalies	38	30	36	35	28
Diseases of early infancy and birth	50	45	33	25	24
Peptic ulcers	20	25	25	17	29
Non-infective enteritis and colitis	15	19	20	2	2
Septicemia	17	7	20	25	21
Epilepsy	13	9	19	7	11
Gastrointestinal haemorrhage	na	17	19	28	13
Liver abscess and chronic liver disease	na	19	19	19	19
Intestinal obstruction and hernia	25	22	16	17	12
Disorders of fluid and electrolyte balance	na	13	16	10	19
Emphysema	21	13	14	7	16
Asthma	14	10	11	10	7
Anemias	11	10	10	7	9
Diseases of veins and lymphatics	49	16	8	10	7
Bronchitis	8	8	8	9	12
All other causes	431	373	382	381	532
Total	5,428	5,248	5,136	5,085	5,000

* See Appendix 4 for ICD-9 classifications for these causes of death

Table XIII: Deaths from Cancer by Site, Sex and Selected Age Groups, 1982

Site	Age Group: Male 0-39	Male 40-59	Male 60+	Female 0-39	Female 40-59	Female 60+	Total Deaths M	Total Deaths F
Lip, oral cavity, and pharynx	-	10	19	1	1	10	29	12
Lip	-	-	-	-	-	-	-	-
Tongue	-	4	9	-	-	2	13	2
Major salivary glands	-	-	-	-	-	-	-	-
Gum	-	-	-	-	-	-	-	-
Floor of mouth	-	-	1	-	-	1	1	1
Other & unspecified parts of mouth	-	1	3	-	-	1	4	1
Oropharynx	-	-	1	-	-	1	1	1
Nasopharynx	-	2	1	1	-	1	3	2
Hypopharynx	-	1	1	-	1	2	2	3
Other and ill-defined sites	-	2	3	-	-	2	5	2
Digestive organs and peritoneum	2	40	151	1	32	152	193	185
Oesophagus	-	10	15	-	1	11	25	12
Stomach	-	6	27	-	10	22	33	32
Small intestine, including duodenum	-	1	3	-	2	1	4	3
Colon	1	8	32	1	9	51	41	61
Rectum and rectosigmoid junction and anus	-	2	22	-	5	26	24	31
Liver and intrahepatic bile ducts	1	4	9	-	3	4	14	7
Gallbladder and extrahepatic bile ducts	-	1	7	-	-	10	8	10
Pancreas	-	8	27	-	2	24	35	26
Retroperitoneum and peritoneum	-	-	1	-	-	-	1	-
Other and ill-defined sites	-	-	8	-	-	3	8	3
Respiratory and intrathoracic organs	3	55	157	-	18	66	215	84
Nasal cavities, middle ear and accessory sinuses	-	-	1	-	-	-	1	-
Larynx	-	6	9	-	1	1	15	2
Trachea, bronchus and lung	3	48	147	-	17	65	198	82
Pleura	-	1	-	-	-	-	1	-
Thymus, heart and mediastinum	-	-	-	-	-	-	-	-
Other and ill-defined sites	-	-	-	-	-	-	-	-
Bone, connective tissue, skin and breast	3	4	5	6	40	72	12	118
Bone and articular cartilege	3	1	2	-	-	1	6	1
Connective and other soft tissue	-	-	1	1	3	-	1	4
Melanoma of skin	-	2	2	-	2	2	4	4
Other malignant neoplasm of skin	-	1	-	-	-	1	1	1
Female breast	-	-	-	5	35	68	-	108
Male breast	-	-	-	-	-	-	-	-
Genito-urinary organs	-	-	-	1	7	19	-	27
Uterus, part unspecified	-	-	-	-	-	5	-	5
Cervix uteri	-	-	-	1	7	8	-	16
Placenta	-	-	-	-	-	-	-	-
Body of uterus	-	-	-	-	-	6	-	6
Total, above sites	8	109	332	9	98	319	449	426

Table XIV: Summary of Vital Statistics by Health Area, 1982

Health Area	Assessment Population*	Live Births		Stillbirths (20+ Weeks)		Infant Deaths (1 Year)		Neonatal Deaths (Under 28 Days)		Post-Neonatal Deaths (28 Days - 1 Year)		Perinatal Deaths (Stillbirths of 28+ Weeks' Gestation and Deaths Under 7 Days)		Maternal Deaths		Deaths All Causes	
		No.	Rate+	No.	Rate**	No.	Rate**	No.	Rate**	No.	Rate**	No.	Rate++	No.	Rate	No.	Rate+
Western	160,758	2,529	15.7	21	8.3	19	7.5	13	5.1	6	2.4	30	11.7	0	0.0	1,300	8.1
Northern	218,658	2,563	11.7	18	7.0	14	5.5	13	5.1	1	0.4	19	7.4	0	0.0	1,705	7.8
Downtown	92,551	1,055	11.4	3	2.8	7	6.6	4	3.8	3	2.8	5	4.7	0	0.0	913	9.9
Eastern	122,103	1,886	15.4	17	9.0	21	11.1	13	6.9	8	4.2	20	10.5	0	0.0	1,081	8.9
City	594,073	8,033	13.5	59	7.3	61	7.6	43	5.4	18	2.2	74	9.2	0	0.0	5,000***	8.4

* 1981 population

\+ Per 1,000 population

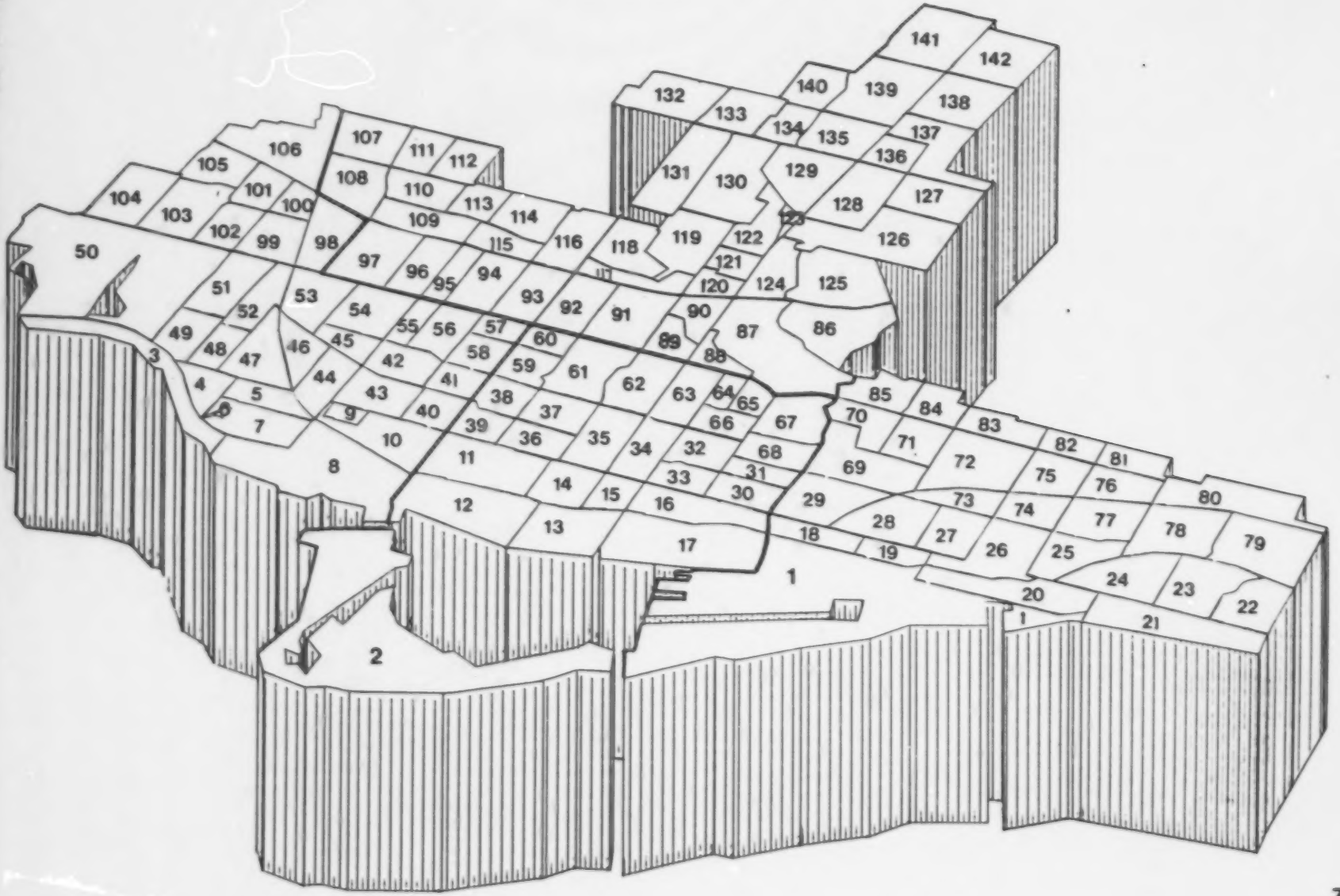
** Per 1,000 live births

\+\+ Per 1,000 live births and stillbirths (28+ weeks)

*** Address missing for 1 case

Appendices

Appendix 1: Census Tract Divisions in the City of Toronto



Appendix 2

Sources and Limitations of Data
The Department of Public Health uses a number of different sources of data to examine the various dimensions of health status in the City. Information is collected on population, natality, morbidity and mortality.

Population Data
Population data come from two sources: the Revenue Assessment rolls, supplied to the Department by the Metro Planning Department, and the Canada Census. A Revenue Assessment, until 1981, has been done on a yearly basis in Ontario, and therefore had provided the Department with up-to-date information on the age and sex distribution of the population. Beginning in 1982, however, the assessment is being carried out every three years, with yearly up-dating. There are known undercounts in the very young ages (less than 5 years) and the very old age groups in assessment data. Nevertheless, these data provide a recent profile of the population by age and sex.

The Department of Public Health has computerized tapes of assessment data from 1970 to 1981. The 1982 assessment data were not available at the time of analysis for the 1982 Annual Statement. Therefore, data from the 1981 assessment were used to calculate rates.

The Department of Public Health also has access to data from the 1976 Census and the 1981 Census. These data can be extremely useful for examining the demographic composition of the population.

Natality Data
Natality data in the Department consist of information on live births, stillbirths, and abortion. Data on live births are extracted from every birth certificate of a child born to a Toronto resident. These data consist of such important health variables as date of birth, age of mother, marital status of mother, weight of newborn, parity, mother's country of birth, and census tract of residence. Live birth data are considered to be fairly reliable and complete, although certain variables, such as country of birth or address, may be missing or inaccurate. On the other hand, all addresses are checked to ensure accurate coding of census tract.

Stillbirth data consist of information on date of stillbirth, age of mother, age of father, marital status of mother, census tract of residence, and cause of stillbirth.

Livebirth and stillbirth data have been computerized since 1979 and are available at the census tract level since then.

Abortion data are supplied to the Department of Public Health by the Ministry of Health for the City as a whole. These data are tabulations from each Ontario hospital's therapeutic abortion committee. They do not include abortions done outside the province. In addition, it is recognized that approximately 10-15% of abortions assigned to the City of Toronto actually represent abortions for the other boroughs and cities of Metropolitan Toronto.

Morbidity Data
Morbidity data come from a number of sources, and these are discussed below.

1. Communicable Disease
The Department of Public Health receives reports of venereal disease, tuberculosis, and other communicable diseases from private physicians, laboratories, clinics, and hospitals. The number of cases tabulated each year by the Health Department, however, is considered to be a gross underestimate of true disease in the community. Nevertheless, these data are useful in examining trends and for giving a general profile of reported communicable disease in the City of Toronto.

At present, tuberculosis data have been computerized, and plans are underway for the computerization of venereal disease reports and other communicable diseases. Computerization of communicable disease data will enable the Department of Public Health to examine data at the census tract level and according to several useful variables.

2. Dental Data
Dental data are obtained within the Department of Public Health through a dental survey on every seventh child who is in the Toronto school system and whose age is an odd number. Children attending Toronto schools and who are not residents of Toronto are included in this survey. In addition, children who are Toronto residents but attend school outside the City are not assessed.

3. Hospital Morbidity
The Hospital Medical Records Institute (HMRI) collects and analyzes hospital statistics, and these data are available to the Department through the Ministry of Health. Unfortunately, the data do not at present disaggregate below the level of the City as a whole, and it is likely that the group "City of Toronto Residents" may also include residents from other Metro boroughs and cities.

It also should be noted that these data do not indicate the number of individuals who suffer from a particular illness and are hospitalized for it. If a person enters hospital several times in one year, each hospitalization is counted, and because of the way the data are collected and coded, there is no way to assess which were repeat visits.

Mortality Data
The Toronto Department of Public Health also receives a copy of the death certificate of every Toronto resident who died within or outside the City. These Vital Statistics forms provide information on date of death, date of birth, sex, address, occupation, country of birth, and cause of death. The underlying cause of death is coded in the Toronto Department of Public Health using the 9th Revision of the World Health Organization, International Classification of Disease. Liaison with the Registrar General's office and the Metropolitan Toronto Coroner's Office enable the Department of Public Health to validate cause of death coding and address. In addition, every address is checked to ensure accurate coding of census tract.

There are a number of problems in using data from death certificates. These problems include incorrect physician recording, selection of a single cause of death when there may have been several, and changes in technology which affect diagnosis, thereby affecting trends of particular diseases over time. In spite of these difficulties, however, mortality data can be used to study disease occurrence in any jurisdiction. These analyses provide one part of the profile on the status of health and can be useful in health planning, policy formulation and further research.

Mortality data have been computerized since 1979. Data are available by census tract from 1979 to the present.

Appendix 3

Public Health Indicators

1. Crude Birth Rate
Number of live births in given year per 1,000 population at midyear.

2. General Fertility Rate (GFR)
Number of live births in a given year per 1,000 female population, age 15-44, at midyear.

3. Age-specific Fertility Rate
Number of live births to females in a given age group, per 1,000 female population of that age group.

4. Total Fertility Rate (TFR)
Average number of children 1,000 women would have if they experienced the current year's age-specific fertility rates. TFR is defined as the sum of the age-specific fertility rates for women when age is given in single years.

5. Illegitimacy Ratio
Number of live births in a given year to single women, per 1,000 total live births in the same year.

6. Stillbirth Rate
Number of stillbirths of 20 or more weeks' gestation, per 1,000 live births.

7. Low Birthweight Ratio
Percentage of babies born weighing less than 2500 grams.

8. Deciduous Tooth Mortality
Percentage of children having one or more deciduous tooth or tooth crown lost due to dental caries.

9. Dental Caries Pervalence on Permanent Teeth
Percentage of children apparently immune to caries on permanent teeth.

10. General Death Rate
Number of deaths in a given year per 1,000 population at midyear.

11. Standardized Death Rate (DSR)
Mortality rate which is directly adjusted to a standard population to allow for comparison over time or among several groups or populations. The DSR "holds constant" the effect of the age and sex distribution of a population so that any variations in the total death rates must result from real differences in age-specific mortality between the two populations.

12. Infant Mortality Rate (IMR)
Number of deaths to children under 1 year of age in a given year, per 1,000 live births.

13. Neonatal Mortality Rate (NMR)
Number of deaths to children under 28 days of age in a given year, per 1,000 live births.

14. Natal Day Mortality Rate
Number of deaths to children under 1 day of age in a given year, per 1,000 live births.

15. Post Neonatal Mortality Rate
Number of deaths to children age 28 days to 1 year in a given year, per 1,000 live births.

16. Perinatal Mortality Rate
Number of deaths to children under 1 week of age plus stillbirths of 28 or more weeks' gestation, per 1,000 live births and stillbirths (28 or more weeks' gestation).

17. Maternal Mortality Rate
Number of deaths due to complications of pregnancy, childbirth, and the puerperium, per 1,000 live births.

18. Potential Years of Life Lost (PYLL)
A measure of premature death between the ages of 1 and 70. PYLL is calculated by cumulatively adding the number of years lost before reaching the age of 70 for each death.

19. Standardized Mortality Ratio (SMR)
A ratio of observed number of deaths compared to what was expected, based on the mortality rates of another population.

Appendix 4: International Classification of Disease, 9th Edition, (ICD-9) Codes for the Causes of Death Listed in Table XII

Cause of Death	ICD-9 Codes
Diseases of the Cardiovascular-Renal System	
Heart disease	390-398, 402, 404, 410-417, 420-429
Cerebrovascular disease	430-438
Diseases of arteries, arterioles, capillaries	440-448
Hypertension without mention of heart	401, 403, 405
Nephritis and nephrosis	580-589
Cancer (Malignant Neoplasms)	
Hodgkin's disease	201
Leukemia	204-208
All other malignant neoplasms	140-200, 203
Violent and Accidental Causes	
Accidents	E800-E949
Suicides	E950-E959
Homicides	E960-E978
Undetermined	E980-E989
Pneumonia, all forms	480-486
Cirrhosis of liver	571
Chronic obstructive lung disease	496
Diabetes mellitus	250
Alcoholism	303
Psychoses, all forms	290-299
Congenital anomalies	740-759
Diseases of early infancy and birth	760-779
Peptic ulcers	531-534
Non-infective enteritis and colitis	558
Septicemia	038
Epilepsy	345
Gastrointestinal haemorrhage	578
Liver abscess and chronic liver disease	572
Intestinal obstruction and hernia	550-553, 560
Disorders of fluid and electrolyte balance	276
Emphysema	492
Asthma	493
Anaemias	280-285
Diseases of veins and lymphatics	451-453
Bronchitis	490, 491

Expenditures

Per Capita Cost of Public Health Services, Department of Public Health: 1967 - 1982

Year	Net Expenditures	Per Capita Cost
1967	4,135,738	6.03
1968	4,482,255	6.54
1969	4,697,540	6.86
1970	4,968,402	7.24
1971	5,574,470	8.07
1972	5,930,393	8.56
1973	6,325,042	9.35
1974	7,139,506	10.46
1975	8,641,626	12.61
1976	9,457,057	13.95
1977	10,341,491	15.58
1978	11,071,910	17.23
1979	13,003,951	20.46
1980	14,653,377	23.24
1981	16,884,559	28.42
1982	19,188,940	32.30*

* Based on 1981 assessment population

Statement of Expenditures, Department of Public Health, 1982

Central Resources	
Permanent Salaries	1,691,898
Temporary Salaries	246,306
Fringe Benefits	283,121
Materials & Supplies	99,655
Equipment	88,939
Purchase of Services	158,361
Distribution Credits	(1,345)
Cont. Other Budgets	
	2,566,935
Eastern Health Area	
Permanent Salaries	2,796,443
Temporary Salaries	369,589
Fringe Benefits	471,575
Materials & Supplies	83,162
Equipment	29,669
Purchase of Services	99,818
Cont. Other Budgets	
Distribution Credits	(73,842)
	3,776,414
Northern Health Area	
Permanent Salaries	2,932,373
Temporary Salaries	401,333
Fringe Benefits	495,883
Materials and Supplies	67,512
Equipment	
Purchase of Services	63,685
Cont. Other Budgets	
Distribution Credits	(11,752)
	3,949,034
Western Health Area	
Permanent Salaries	3,143,869
Temporary Salaries	460,832
Fringe Benefits	533,593
Materials and Supplies	70,759
Equipment	735
Purchase of Services	74,317
Cont. Other Budgets	155
Distribution Credits	(52,010)
	4,232,250
Downtown Health Area	
Permanent Salaries	3,393,390
Temporary Salaries	432,280
Fringe Benefits	575,511
Materials & Supplies	68,584
Equipment	1,417
Purchase of Services	192,218
Distribution Credits	(135,127)
Cont. Other Budgets	
	4,528,273
Family Planning	
Permanent Salaries	178,105
Temporary Salaries	4,274
Fringe Benefits	30,085
Materials & Supplies	24,629
Equipment	
Purchase of Services	666,263
Distribution Credits	(903,356)
	0
Special Items	
Temporary Salaries	6,828
Fringe Benefits	221
Materials & Supplies	38,102
Equipment	1,034
Purchase of Services	109,862
Distribution Credits	(21,043)
Cont. Other Budgets	1,030
	136,034
Net Expenditures	$19,188,940

POOR

QUALITY

ORIGINAL